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AMERICA MORE BEAUTIFUL



**GREENING'S
BOOK OF
NURSERY PRODUCTS**

THE GREENING NURSERY CO.
MONROE • MICHIGAN
LARGEST GROWERS OF TREES IN THE WORLD

The South Haven Peach

Trade Mark Registered in U. S. Patent Office



We consider the South Haven peach one of the greatest thus far introduced to American Fruit Growers. It is by far the hardiest commercial variety and ripening as it does ten days to two weeks earlier than Elberta, it can be placed on the market at a time to bring the highest prices.

It is therefore, a profitable variety and as it is an early and prolific bearer, ships well, has good color and is a good canner—it deserves a place in every peach growing section.

We have been unable to propagate enough as yet to satisfy the big demand. Read pages 73 to 75 for history etc.

WARNING:—Orchardists are hereby warned that this variety, South Haven peach, can only be secured from us. Any use of the name "South Haven" as applied to a peach will be considered an infringement of our rights under the Laws Governing Trade Marks, and all violators of same will be prosecuted.

THE GREENING NURSERY COMPANY
Monroe, Michigan

GENERAL CATALOG

The
Greening Nursery Co.

Monroe, Michigan

Born 1850 — Still Growing

Growers of Everything for the

Orchard, Park
and Ornamental Garden

Copyright 1923

All Rights Reserved

Landscape Architects

Largest Growers of Trees in the World

Complete Satisfaction Positively Guaranteed

Should we be favored with your order, and your order shipped and paid for—even then the transaction is not ended.

We use every effort to produce quality stock because we know there can be no question about the quality of your money.

After you have received and paid for your stock, should it not be up to your expectations we cannot feel that we have given you value received.

Therefore, every shipment leaving our cellars has attached a tag on which is printed "that he who runs may read" this question and statement;—

ARE YOU SATISFIED WITH GREENING STOCK? NO SALE IS COMPLETE UNTIL YOU ARE.

Because of this simple application of the Golden Rule in our every day dealings we attribute our success and it is wholly on this basis that we solicit your business.



The Greening Nursery Co.
Monroe, Michigan

Born 1850 - - - - - - - Still Growing

FOREWORD

TRUTH— THE WHOLE TRUTH, AND NOTHING BUT
THE TRUTH—IS THE BASIS ON WHICH WE SOLICIT
YOUR BUSINESS, BECAUSE A CONTINUED
PATRONAGE IS OUR CONSTANT AIM

As in previous editions we wish to emphasize the
above as the basis on which we desire your business.

We do not list or continue to propagate any variety
which is not hardy or worth-while in the north.

We trust you will write us if in need of any informa-
tion regarding the stock we catalogue.

Our experience is at your service and we will be
pleased indeed to give you the benefit of what we have
learned.



Registered Trade-Mark

The Greening Nursery Co.
Monroe, Michigan

Born 1850 - - - - - Still Growing

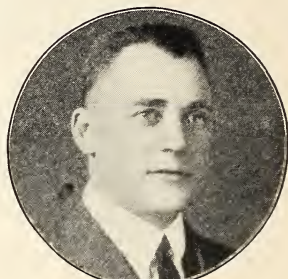
Directors *The* Greening Nursery Co.



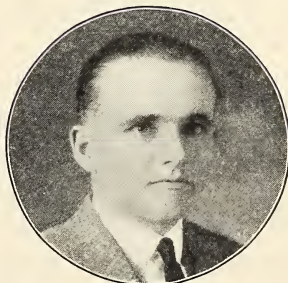
CHAS. E. GREENING
*President and
Consulting Horticulturist*



BENJ. J. GREENING
*Vice-President
Production Manager*



EDW. G. GREENING
*Secretary-Treasurer
General Manager*



HOWARD D. FASHBAUGH
Stock Department

Staff of
Business Administration

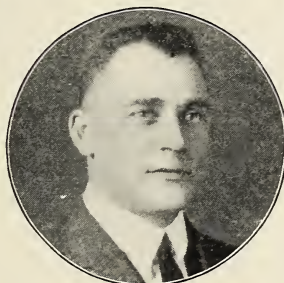
The Greening Nursery Co.



HARRY L. STEINER
Sales and Office Manager



RAY D. FERRIS
*In Charge
Order Department*



EDWARD G. GREENING
*Secretary-Treasurer
General Manager*



H. EDGAR LENTZ
Auditor and Cashier



ANDREW R. SOLEAU
*In Charge
Credits and Collections*



GEORGE J. SCHAEFFER
*Shipping and Sales
Department*

Production Department of *The Greening Nursery Co.*



WALTER H. GREENING
Superintendent



BENJAMIN J. GREENING
*Vice President
In Charge of Production*



RICHARD STRAUCHMAN
*Foreman
Storage and Shipping*



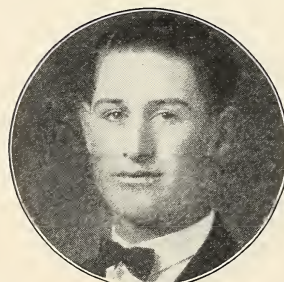
JOSEPH HELLER
*Foreman
Ornamental Department*



ROY E. GIBSON
*Research Department
Bud Selection*



HAROLD REUTTINGER
*Foreman
Ornamental Propagation*



GREGORY NAVARRE
*Foreman
General Field Operations*

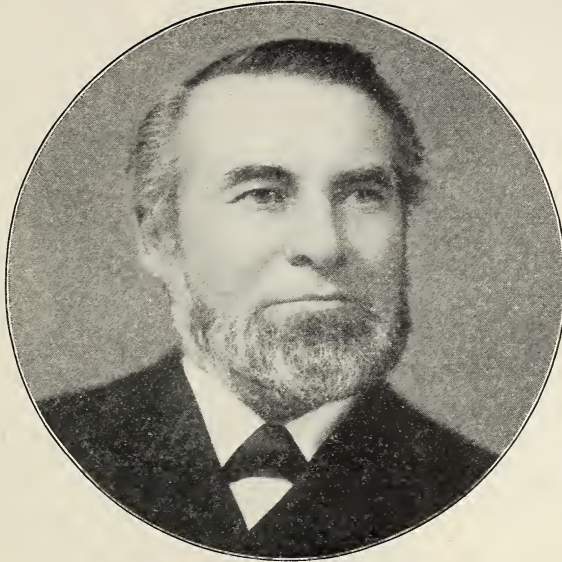


WILBUR ROMINE
Master Mechanic



IRVING DUVAL
*Foreman
Fruit Propagation*

The Story of the Nursery



The late J. C. W. Greening

EMERSON, America's most noted philosopher, once said that "a business was only the lengthened shadow of a man."

If this be true then the Greening Nursery Company is but the lengthened shadow of the late J. C. W. Greening, founder of Greening's Big Nurseries, who was a professional gardener in Germany. He came to America in the forties and began the nursery business in Monroe in 1850. He was the father of Charles E. Greening, now President of the Greening Nursery Company, and one of the best posted men on the nursery and landscape business in America.

Each year since the inception of our business a distinct advance has been made. The management has continued in direct line since J. C. W. Greening made his humble beginning in 1850, he being succeeded by his two sons, Charles E. and George A. Greening, in 1883. The picture shown on page 10 represents the complete outfit with which the Greening Brothers started in business in that year—a few tools, one horse and practically no capital. They did have, however, a large supply of that commodity which money does not purchase, namely, knowledge of their profession and determination to make it yield them returns.

The simple little house in the picture was the old home. Around this modest place were thirty acres of the finest land that one could find in a day's journey. This thirty acres constituted the original nursery. The business has now spread over fifteen hundred and thirty acres of land in the same section where the start was made. The original thirty acres is still producing.

Very naturally we are proud of the growth and advancement which has been made. Our patrons may judge for themselves whether our present status has been earned or not. From our humble beginning we have grown to among the largest producers of nursery stock in the world. Hard work and honorable business methods have been responsible.

The nursery in its entirety is now under the direct supervision of the third generation, Messrs. Edward G. Greening and Benjamin J. Greening, sons of Charles E. Greening. In this connection it might be well to state that our business is a close corporation. It has been the life aim of Mr. Charles E. Greening that the business be perpetuated as The Greening Nursery Company and this also was the wish of his father, the late J. C. W. Greening. Each and every Director of this corporation is an active worker, having charge of one or more Departments of the business and may be found devoted to their tasks each and every day of the year.

Mr. Edward G. Greening is the youngest son of Mr. Charles E. Greening. He began active work in the nursery in early boyhood under the personal direction of

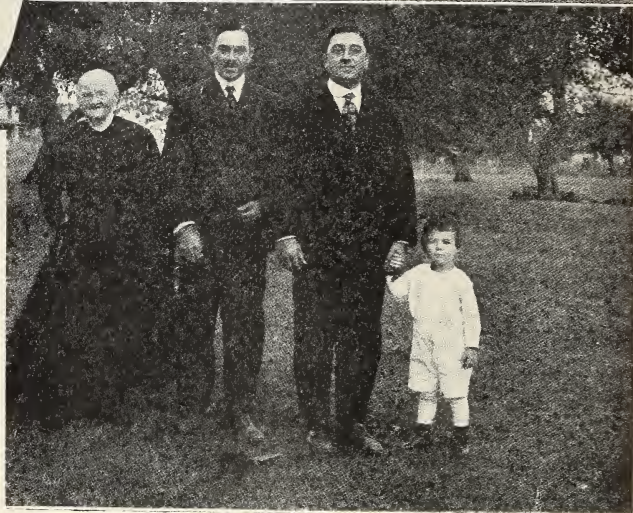


The single picture above is the late J. C. W. Greening, founder of The Greening Nursery in 1850.

At the top to right are Mrs. J. C. W. Greening (now deceased), and Mr. George Bruckner, in the old orchard which was planted by Mr. Greening, Sr., and Mr. Bruckner, in the afternoon of the day they voted for Abraham Lincoln for President.

The next picture below shows four generations of the Greening family: Mrs. J. C. W. Greening, her son, Charles E., his son, Benjamin J., and his son, Charles B., Jr., in the same old orchard which is yet bearing fruit.

Age is an asset in business. The continuance of ours in one family for three generations means that the policy adopted in the beginning and followed since its inception will be maintained, namely: "A continued patronage is our constant aim." Unswerving adherence to this policy through these many years has resulted in the largest retail nursery business in the world.



his father, Charles E. Greening. He continued in the practical study of active field work until he had mastered it. He then began his studies in Horticulture, Pomology and Landscape Architecture at Cornell University. Graduating there he came home and again took up the practical end of nursery work. Later, he was made General Manager, Secretary and Treasurer.

Mr. Benjamin J. Greening, Vice-President of the Company, devotes his entire time and wealth of experience in the propagation and growing of the stock we list in this catalog. When you take into consideration the fact that we grow a longer line than any other nursery in this country you will then understand why it is that this Department requires his entire attention.

The knowledge required to propagate and grow the many different varieties we catalog requires a wealth of experience, almost staggering in effect, when you consider it in detail. Mr. Benjamin J. Greening is not only a master of detail, but an efficient executive and he has surrounded himself with men of knowledge and experience, who ably assist him in the multitudinous detail necessary in propagation.

You will see from the very beginning away back in 1850 that this business of ours has been gradually changing until it has now come to be an institution. Institutions are permanent; permanence is an asset. Hence it is that thru the long years of active practice and theory we have by the process of elimination reached the point where each step taken is on sure ground, and thus it is, that the quality of the stock we grow is so superior that it has no equal.



BUDDERS AND WRAPPERS

An aggregation of skilled workmen in the science of budding trees. A small army of active people selected from the most reliable, skilled and intelligent help at the nursery. With this force we are able to bud about 85,000 trees per day. The varieties are carefully guarded against mixture.

Greening's Bi-Seasonal Nursery Inspection

Twice each year during the growing season the members of our family make a complete survey in detail of the entire nursery.

Being expert in the identification of fruit and ornamental stock as to their varieties, etc., we pass up and down the rows, carefully scrutinizing each tree or shrub or perennial to be positively assured that there are no mixtures.

We believe in the old maxim "To him who exerciseth great care and diligence comes great results." Hence we have a pride in giving our personal attention to the business and the results we have succeeded in getting proves our practice.

Storing When trees are graded they are packed in bundles of ten and twenty and stored preparatory to the spring shipping season. This requires cold storage cellars—proof alike to the extremes of heat and cold. The illustration of our storage cellars does not do justice to the vast areas they cover.

These huge storage buildings give an interesting example of modern genius in the storage and care of nursery stock. They are nine in number, built of quarried stone and represent an investment of large capital. Total area of storage room, 200,000 square feet, being the largest in the world; capacity, over thirty million trees and almost unlimited numbers of shrub plants. With the facilities we have for perfect storage, we are prepared to meet emergencies arising from shipping stock during the winter and late spring. Stock is handled and packed in these buildings without exposure to sun, wind or frost. The carelessness among nurserymen generally in handling trees and shrubs, if seen by planters, would prove a big surprise. Stock is handled too much like brush from the clearings. Is it any wonder that there are so many disappointed planters? Under our system of winter storage and packing we actually retain the perfect growing condition without deterioration in any form, from the time the plant is dug until the planter receives it ready for planting. A cold storage room to hold over stock for very late shipments is in connection with these buildings.



OUR HUMBLE BEGINNING

The picture above was taken when Charles E. and his brother, George Greening, took over the business of the late J. C. W. Greening, their father. In those days the equipment used in nursery practice was not that which obtains today. You will note "Old George," the horse—their faithful horse for many years—and sole motive power hitched to their one and only wagon and standing close by their plow, cultivator, shovel and two hand hoes. The house in the background is the original Greening home built by the late J. C. W. Greening, their father, and occupied by him for many years. George and Charles E. were married at the same time—to save expenses, so they say—and in this house the two families lived together. It is related that they flipped a coin to see who would live downstairs. George won, so Charles E. lived upstairs and George down for some years. This house still stands in good preservation. It is kept intact as they left it. Readers of this catalog should refer to cuts which follow, showing the modern and up-to-date equipment used in nursery practice today, noting the wonderful advance made in tools and implements necessary to carry on a modern nursery in an efficient way. Tractors are now used for motive power, but we still have many horses as certain work requires their use.

Shipping Our business is so vast that the New York Central R. R. built a spur connecting us direct to their main line running between Toledo, Ohio, and Detroit, Michigan. The New York Central R. R. system comprises in its entirety one of the two largest systems in the United States. In addition to this great system, we are also situated on the Grand Trunk, the Pennsylvania Lines west of Pittsburgh, the Michigan Central R. R. and the Pere Marquette Railway. We can ship the smallest bundle or by carload direct to any point with no lost motion as we are here right in the heart of the great middle-west with the center of population not over one hundred miles away. We also have fast Interurban Service to Toledo and Detroit; these afford us direct routes to many points.

FACILITIES

Soil We have emphasized the quality of the stock we grow in The Story of the Nursery on the preceding pages. It is true that skillful experience is necessary to produce such stock; but there are other essentials, the primary one being quality of soil. We now have 1,530 acres devoted to the propagation of nursery stock. Our



OUR NEW OFFICE BUILDING

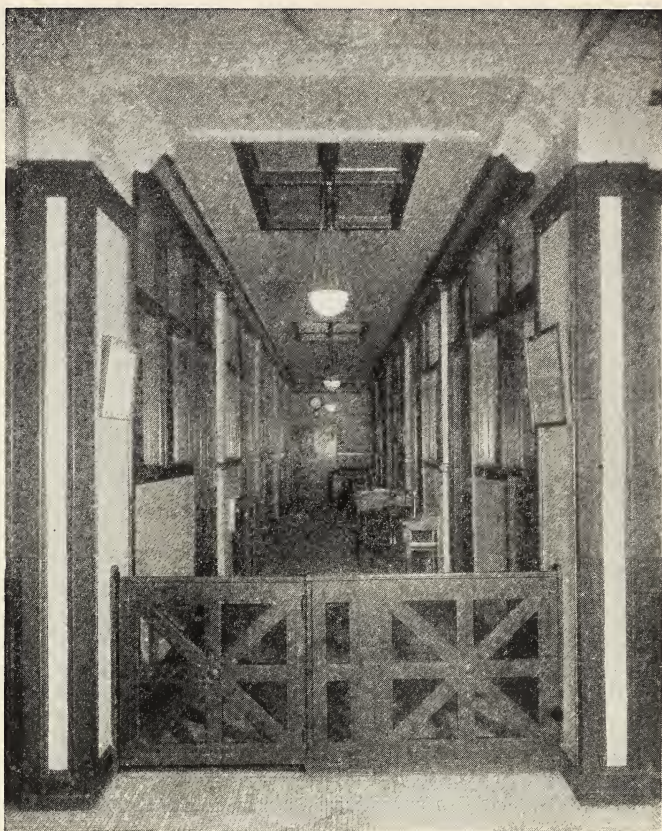
We maintain the same efficiency in the office as in the field. It is comfortable, also conveniently arranged. Situated right on the Dixie Highway, across the street from the Post Office. We get mails promptly, and our customers in driving through, find it convenient to drop in and get acquainted. The Nursery is only a few minutes distance by auto from the office.

soil is the richest and most fertile sort of clay loam underlaid with a porous clay subsoil. Thousands of dollars have been expended in under-draining and improving it for the growing of the highest quality of nursery stock.

Climate Our climate, too, is one of our big assets. It is cool and healthy, and tempered by the breezes of Lake Erie, which lies east of our great farms. Such conditions as these never fail to produce perfectly hardy and healthy stock with clean, smooth, sturdy bodies and large fibrous roots. Our farm has been called one of the richest in America, and justly so, as the stock we grow proves.

Labor Having the soil and climate plus experienced management, there is yet another item that we are fortunate in having. This is experienced help. This results from keeping intelligent men the year round and offering them every advantage to stay with us at good wages. It wouldn't be possible to secure this help in the open market. Instead we have trained them—father and son—during these years, until our force of men are an asset in growing which cannot be overestimated. Houses are provided for our men on our own land. Here they have real homes with gardens and everything that adds to comfortable living and contentment. This we do as an aid to retaining good men with a knowledge of the work so necessary to successful propagation.

Budding and Grafting It is in these operations that practical experience is worth more than tons of theory. It is the crucial moment in the propagation of fruit trees and we insist on constant and thorough superintendency of these operations. Mr. Richard Strauchman has complete charge of this work. He was born on our nursery grounds, and his father before him was with us for thirty years. Mr. Strauchman is held entirely responsible for this work. The budders and grafters are not allowed to select either buds or scions themselves. They must go thru Mr. Strauchman's hands. He has charge of them. We do



HALLWAY OF OFFICE

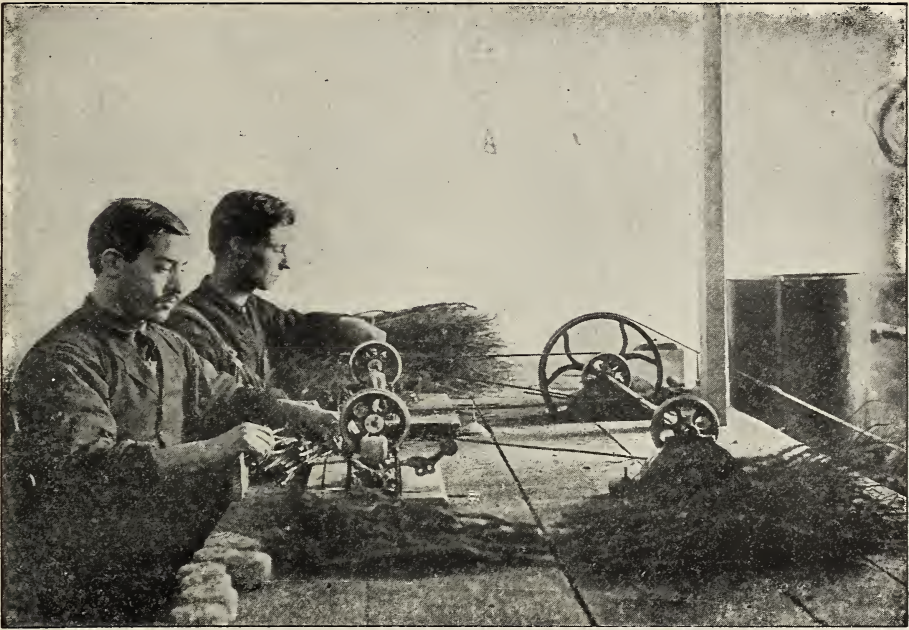
If you can conveniently do so we would be pleased to see you at any time. Our office is located across the street from the Post Office in Monroe, Michigan, on the Dixie Highway. It is of easy access to all automobilists.

this to avoid mixtures, because we guarantee our stock to be true to name and feel we must protect our reputation as well as the interest of those who buy their stock from us.

Cultivation Growing stock must be cultivated as carefully as can be. We aid our men by furnishing them every form of improved machinery so that they may take advantage of all favorable weather from the time the soil is broken until the stock is dug.

Spraying Nowadays, the old style of "catch as catch can" in growing stock is obsolete. Each state provides for nursery inspection and nurserymen dare not, if they would, ship stock that isn't clean and free from all insect life and fungous diseases of whatever nature. The spraying outfit shown in these pages is the result of experience and was invented and improved under our personal supervision until we offer stock that is absolutely healthy.

Digging We grow every year millions of trees alone. When they have reached the proper age for transplanting, storage and sale, they must be dug. Years ago when trees were handled the old-fashioned way, many of the roots were bruised and broken in digging. This no longer obtains. We now dig by steam and tractor power. No roots are lost. Instead, as you will see by the photograph showing our improved digger, that we can and do furnish you with "trees you can trust" to grow, if you will do your part as well as we have done ours.



UP-TO-DATE METHODS IN GRAFT WRAPPING

Here we show our latest graft wrapping machine, operated by a gasoline engine. Two wrapping machines are shown. One man with machine will wrap over 15,000 whole root grafts in a single day, more than three times as many as by hand, and the work is far superior to the old method in point of quality as it insures a better union of the graft.

The cost of production is so high that every effort must be made to increase the output providing it can be done with better eventual results. The view on this page shows what we do to lessen cost.

In the digging of our trees and removing them from the plots where they were grown it is our method to go thru the block and instead of digging each variety as it comes, dig the first variety—then the third—then the fifth, allowing the varieties in between or each alternating variety to stand until the entire block has been gone thru. This keeps a barrier between the varieties and prevents chance for mixtures. Although this practice is not the most efficient and economical from the standpoint of getting the trees harvested at the least possible cost; there is greater safety and no possible chance of mixtures occurring when digging and hauling to cellar. This method in digging is rather difficult to describe in words, but if you could see it in actual practice you would be convinced that it is effective.

Preventing Mixtures of Varieties

Mr. Strauchman who has charge of our budding also has charge of the storage cellar in the fall when our trees are dug. This is another important moment in the life history of our fruit tree. As the wagons are unloaded Mr. Strauchman directs and sees that each variety is properly placed in a careful manner so there can be no chance for mixtures and he also sees that the labels are kept in absolute order.

Fumigating

The conditions which govern the nursery business make it imperative that stock planted in the middle-west must largely be planted in the spring. These conditions must be met by storage and in consequence to make assurance doubly sure, we fumigate every tree and shrub dug in the fall before we grade and store preparatory to the spring season. No nursery could handle its orders and do else. After the fumigating comes the grading and in no operation do we use more care.



DIGGING TREES BY STEAM POWER—A SCIENTIFIC TRIUMPH

Progress is the watchword of the American people. This progressive spirit has manifested itself in the invention of a tree-digging machine, by means of which trees may be dug without the slightest danger of bruising or injuring the roots. As shown in the illustration, the ground has been dug away directly back of the digger, exposing to view the steel blade and lifter of our modern tree-digger, running at the time under our mammoth block of whole-root apple trees at a depth of 30 inches. The cables drawing the digger run to pulley blocks stationed at the ends of the rows, thence on a rectangle to the machine operated by steam power. Do not such methods appeal to an intelligent people? With these facilities we are able to furnish trees with abundant masses of fibrous roots, such as will grow and make splendid orchards of strongest fruiting power.

Grading Each tree is handled. Every tree is examined by an expert. They are sorted as to grade and the business we have built is our most conclusive evidence that our trees deliver well—are up to specifications in every particular.

Packing But before stock is shipped it must be packed. This is under the direct personal supervision of our Mr. George J. Schaeffer, assisted by Richard Strauchman. Here it is that extreme care is needed. Our box shipments are invariably lined with strong paper made on purpose for us to use in this work. This paper is of a quality to protect the trees from drying out, being wind proof. A vast amount of nursery stock reaches its destination in a condition fit only for the brush heap, as the result of careless work and handling at the nursery. The rule of keeping the stock fresh and moist all the time under our care is strictly enforced. Our stock always arrives in good condition even if shipped across the continent. In point of careful handling and skillful packing our system is unsurpassed.

Service Our service doesn't end at the time the shipment is made. We are still concerned after it is delivered to the Railroad Company. We mail out a return postal card with each bill of lading which states the date the shipment should reach the consignee and to notify us at once if delivery is not made on the date stated. This informs us that the shipment is delayed in transit and we not only advise our local Freight Agent, but get into immediate touch with the General Freight Agent by 'phone or telegraph concerning it.

Very Special Guarantee

We take all responsibility and guarantee our stock to arrive in perfect condition where we pay the freight. However, complaints must be made within ten days after stock is received to enable us to collect damage from the common-carrier in case stock has been unusually delayed.

Dixie Highway

Last but not least, since the Auto has come in such vast numbers, is the Dixie Highway. Located midway between Detroit and Toledo on this great automobile route from the Great Lakes to the Gulf, and which is only second to the Lincoln Highway in length and popularity we are daily serving many thousand buyers during the planting season. It is only a few hours run for many of our customers. The road is fine. The drive exhilarating. The benefits of the trip many. We invite everyone interested in trees, shrubs and flowers to drive to the nursery and see for themselves that we really do produce superior stock—that the claims we make are true.

YOUR INSURANCE OF A "SQUARE DEAL"

It is regrettable that some nurserymen follow the adage that "A sucker is born every minute," and offer highly colored old varieties under new names each season and get away with it. Glowing descriptions are printed and miraculous pictures shown designed to attract those who are not posted. This is a hardship on reputable nurserymen who confine their propagation to worth-while sorts which are really good.

The Greening Nursery Company begun business in 1850 with no capital. Our business has grown by strict adherence to the motto of

"A CONTINUED PATRONAGE IS OUR CONSTANT AIM"

and in our giving the buyer a service unequalled. Strict observance of this principle and the satisfaction it engendered among buyers caused unscrupulous competitors and dealers to claim they bought their stock from Greening.

Therefore, to protect our customers we began using the Trade-Mark shown here and this is our guarantee to the public that every bundle of stock leaving our nursery is true to name and represents the ripened experience of seventy some years in propagating all varieties of stock, both fruit and ornamental, which thrive in the North Temperate zone.

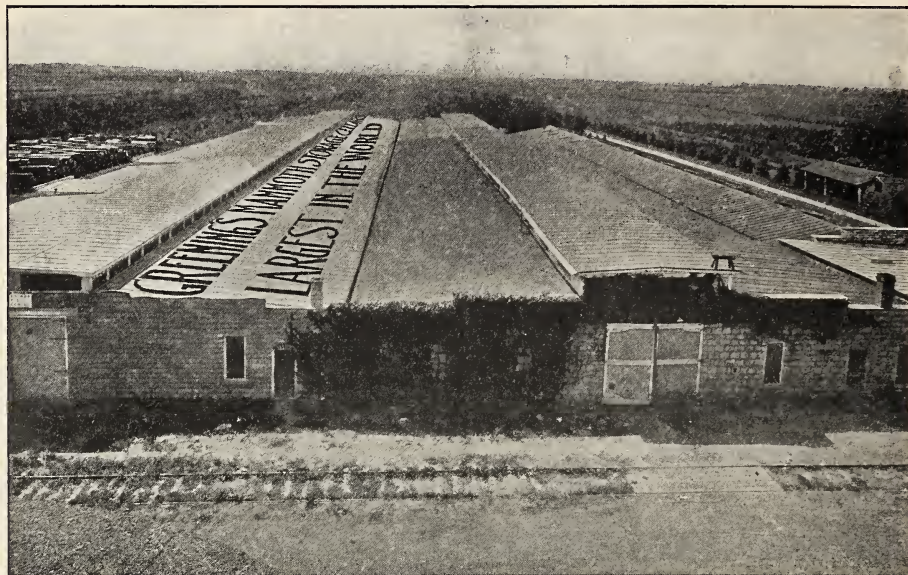


Registered
Trade Mark

It is at once apparent that a reputable concern cannot use a Trade-Mark unless the stock so protected is the best of its kind. We cannot stamp our name on our product but we securely attach our Trade-Mark thereon, which protects you against unscrupulous agents and dealers who claim their stock comes from our nursery. We do not use any other catalog than this; we do not do business under any other name except THE GREENING NURSERY COMPANY of Monroe, Michigan. The users of our products are our very best "boosters." They all say "get them from Greening," and as we only operate under one name, selling our product entirely thru reputable authorized agents, who carry their credentials from this Company, you can protect yourself by asking any salesman, who claims he represents The Greening Nursery Company, to show his credentials. If he cannot do so, he is a fraud. And as a further safe guard, any stock received by you which does not have the Trade-Mark shown above on the shipping card, never came from our cellars.

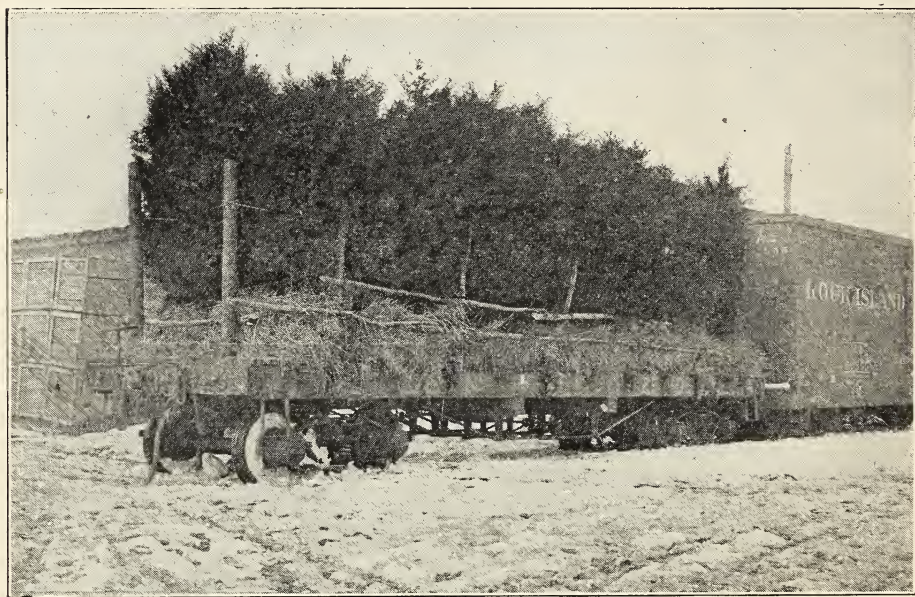
The credentials carried by our salesman is a copy of the Inspection Certificate issued by the State Inspector of Orchards and Nurseries in Michigan. Properly filled out it will have the name of the salesman (to whom it was issued) under "To Whom It May Concern," and signed by the Greening Nursery Company, and you should insist for your own protection that all salesmen who say they represent us produce it before placing your order.

Plant Peony, Phlox and Iris. They
are the best perennials.



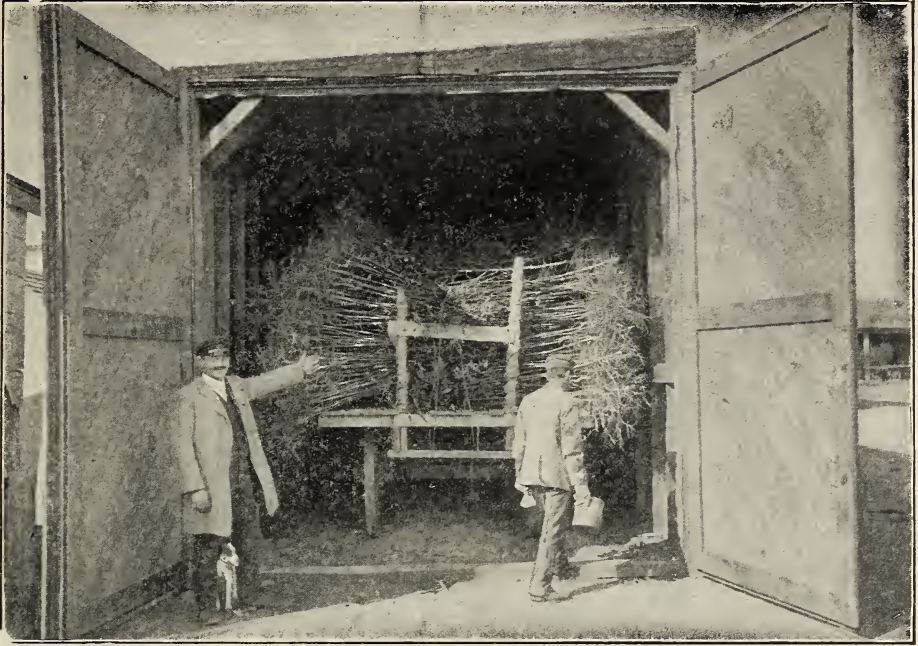
OUR MAMMOTH STORAGE CELLARS—LARGEST IN THE WORLD

Above; a partial view of our cellars. Note the railroad track in foreground. It is on this track that the car of Evergreens was standing when photograph below was taken. These views are shown merely to give you an idea of our ability to give you satisfactory service.



SHIPPING A CAR LOAD OF LARGE EVERGREENS FROM OUR NURSERIES

You will notice from the snow in the picture that these evergreens were shipped in winter. Certainly it can be done. Merely dig the tree with a frozen ball of earth. In the spring the tree will wake up and grow and will never realize that it has been moved.



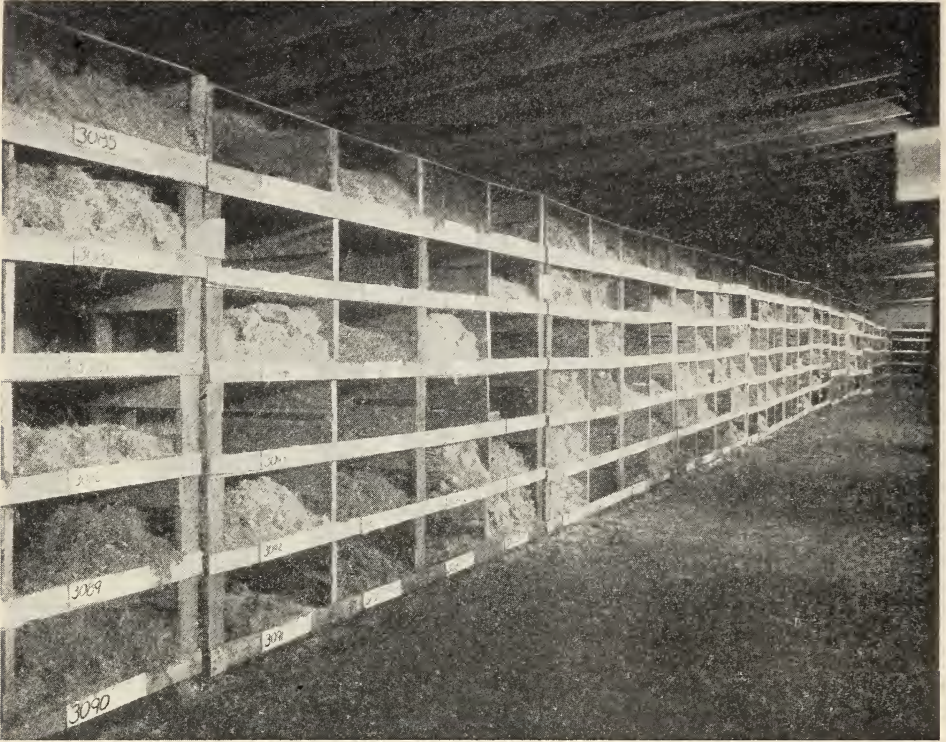
OUR FUMIGATING HOUSE
TREES FREE FROM DISEASE AND INSECTS

Pursuant to the requirements of the State law, we have built two large fumigating houses in which all stock is thoroughly fumigated with Cyanide of Potassium and Sulphuric Acid before shipment, as prescribed by law, which absolutely destroys all insects, also fungus in any form, without injury to the trees. A wagon load of steam-dug trees, showing large bunches of roots, has been brought into the fumigator, and our chemist is in the act of putting in the charge of chemicals previous to closing the air-tight doors.



SHOWING THE ORDERLY WAY IN WHICH RETAIL ORDERS ARE FILLED IN THE
STORAGE CELLARS

Trees placed in stalls, marked as to varieties. Easy to keep roots moist and conditioned.



A CORNER OF CELLAR NO. 7

The photograph of Cellar No. 7 above shows the numerical system we use in filling orders. In botanical classification of stock many names are almost similar. This leads to confusion and mistakes in filling orders, therefore, we use the numerical system. Every order is checked three times before shipment. We do everything humanly possible to avoid mistakes. We gain nothing by substitution and do not permit it. If mistakes occur we gladly right them.

Do you want flowers for Decoration Day? We have two Peonies that will afford a wealth of bloom at that date. They are the *Officinalis rubra* (crimson) and *Officinalis rosea* (pink) Refer to index.



CELLAR NO. 9 GREENING NURSERY COMPANY

Our cellars for storage of stock are the largest in the world. Stock is dug when dormant, that is, when leaves have dropped in late fall. It is then fumigated, sorted, labeled, bundled and placed for quick access when orders are filled in spring. If you have never seen them and are interested in either fruit or ornamental stock, a visit to our cellar would be interesting indeed. You are welcome.

Iris is the Greek word for Rainbow and how truly it describes the modern Iris when grown in groups. Those we offer are the best of the very best. Refer to index for full description.



ONE CORNER OF OUR ROSE CELLAR NO. 1

Field grown Roses are dug in the fall when dormant then placed in cellar with roots in sand and kept dormant and in good healthy condition until time for shipment in spring. A certain temperature must be maintained thruout the winter and a certain degree of moisture be present at all times. Note the size of these large healthy field-grown Roses all of which will bloom the first season if properly planted.

How to plant Roses? See Greening's New Book of Horticulture page 34 this catalogue.

“Jes’ a summer evenin’ with the world
in tune—
Nothin’ ain’t so lovely as a night in
June.”

Especially if you have a rose-garden.
Plant roses—the most beautiful of all
flowers.



END VIEW OF ROSE CELLAR NO. 2

You can see how the roots of the roses are placed in the sand that they may be kept in a viable condition. Note the large healthy plants. All of our roses are field grown and will bloom the first season. None are finer. We have all the best sorts. Refer to index.

Our roses are all field grown and will
bloom the first season.



The cut above is cellar No. 5. Rather difficult to photograph. This was taken in the darkness with the electric lights turned on. You will note the depth. Trees shown on either side are about 15 feet high. This cellar contains many thousand fruit trees—all kept at a certain degree of temperature and moisture, or dormant.

There are over 2,000 varieties of Peonies—not all are good. We sort, sift and eliminate. You can buy any we list herein in confidence.



It is well-known that our cellars are the largest in the world for the care and storage of nursery stock and the illustration above shows an aisle, or driveway in cellar No. 6. Note the orderly array of trees, both fruit and ornamental, all arranged according to botanical classification.

Environment means much in the development of mankind. Decorate the grounds about your home.



*Inspecting Young
Peach Trees*



*Autos of the Oakland
County Michigan Hor-
ticultural Society
parked at Nursery
when visiting us.*

*Photographs taken in
one of our cellars
where meeting was
held*



OAKLAND COUNTY HORTICULTURAL SOCIETY VISITING OUR NURSERIES

For An America More Fruitful



A BRANCH OF WINTER BANANAS
(Reduced Two-thirds)

Scientific Research

FROM the very inception of our business we have made a constant study of how to propagate trees of high productivity, hardiness and which will bear fruit of superior quality. To that end we maintain a Department of Scientific Research. This Department is explained in detail on pages 35 to 40 to which we refer. Kindly read it, because it sets forth in detail how we select the parent stock from which we propagate our fruits.

Horticulturists throught the United States recognize our advanced method of propagation and the letters we receive from fruit growers commending us on the results we are getting, prove without a shadow of doubt, that we are following the right method.

Possibilities in Fruit Growing

The population of the United States is increasing faster than the production of fruit and has for years past. In the future, farm orchards will be an important factor in supplying towns and cities with fruit and every land owner who is alive to his opportunity, should plant an orchard large enough to justify him in caring for it properly and will find it the most profitable product of his farm.

If the same percentage of increase in population continues, there will be in the United States in 1930, 130,000,000 people—in 1940, 165,000,000, yet census figures show that the decrease in apple production in the decade from 1900 to 1910 was 33 $\frac{4}{10}$ percent. The increased movement from farm to city must also be considered. In 1910 only thirty percent of our population lived on farms. Seventy percent in the cities and the stream continues in constantly increasing numbers.

To give you the actual figures our population increased in the ten years between 1900 and 1910, 17 $\frac{3}{10}$ percent. Between 1910 and 1920, 14 $\frac{9}{10}$, while the decrease of apple trees of bearing age in the ten years between 1900 and 1910 was 33 $\frac{4}{10}$ percent. Between 1910 and 1920, 28 $\frac{8}{10}$ percent!

The decrease in peach trees of bearing age between 1910 and 1920 was 30 $\frac{5}{10}$ percent!



THE FAMOUS ORIGINAL WINTER BANANA APPLE TREE AND ITS ILLUSTRIOUS ORIGINATOR, MR. D. M. FLORY

Tree six and one-half feet in circumference three feet from ground, forty feet spread; thirty-eight years old.

And this also should be taken into consideration—apple trees now planted not of bearing age decreased in the ten years between 1910 and 1920 forty-five percent! Peach trees not of bearing age decreased in the same period 48 8/10 percent!!

These figures show a tremendous increase of apple consumers and an alarming decrease of apple and peach trees. With our increasing population there is bound to be a shortage of apples in the near future. As the demand increases and the supply decreases the prices will rise proportionately. These figures should be considered by every land owner who wishes to get the greatest profit from his acreage.

Orchard Profits

Profits in fruit growing depend as in all business enterprises, on the owner. A well-cared for orchard or small fruit farm pays if looked after. There is a market for all fruit if properly grown, graded and marketed.

At a recent meeting of the Illinois Horticultural Society growers present were asked to give specific examples of their profits. The average net profit per acre was \$500.00.

Profits in General Farming

cared for orchard!

Now compare the net profits given above to those you have made in general farming, or even if you specialize and are a dairyman, think of the vast difference in the net profit from your farm and a few acres in a properly planted and

The last few years you have been getting prices for farm products which did not pay cost of production. In many states, farmers have been unable to live, to pay taxes and keep up their insurance from the profits of their farm.



The cut above was made from a photo taken of the Peach orchard of Mr. J. H. Behnken, Somerset Center, Michigan, in 1916, just forty months after planting. We furnished the 2,000 trees necessary to plant this orchard, and of that number only one failed to grow. We offer this as evidence that our stock makes good. In propagating we use buds taken only from high-producing trees of quality fruit. Read pages 22 to 24 in this connection.

Dairymen are combatting the low prices of milk, and tuberculosis in their herds, and many have told us personally, they were getting out of it as fast as possible and going into fruit raising. There is an opportunity here and the profits are sure for land owners to go into commercial growing of fruit to satisfy the big demand now existing and which will continue to exist for years.

Michigan is especially favored by location, being surrounded by water on three sides as a fruit growing state. That part of Wisconsin adjoining Lake Michigan, the northern and southern parts of Illinois, the northern and southern parts of Indiana, the same in Ohio, and the northern part of New York, bordering on Lakes Ontario and Erie, are especially favored by soil and climate in the production of all fruits. In the sections mentioned fruits of the finest flavor and highest color may be grown—all of them will pay a profit, providing the right varieties are selected for location and markets, but apples will grow and thrive in all these sections.

The Farmer and His Orchard

An orchard planted for commercial purposes requires capital to develop. The general farmer who plants an orchard and cares for it will eventually derive a nice profit. The cost until it gets into bearing age will be absorbed and taken care of by the general farm crops. As soon as it begins to bear it will be the most profitable crop of his farm and this is possible on any farm without any large outlay of capital and with the use of fillers an orchard can be made to bring an income after the fourth year.

The Home Orchard

Have you ever stopped to think that when boys and girls who are farm reared leave their early environments the "old home orchard" lingers longest in their memory?

They long for the old home with its orchard, its flowers and its trees. It is the duty of each home-owner to consider this. It is building up a citizenship which is truly patriotic. The love of home and nature in the younger generation can be installed in no other way so surely and so easily as by planting a home orchard.



NURSERY SPRAYING: A SCIENTIFIC TRIUMPH—OUR SPRAYING APPARATUS

During the process of our experiments and investigations for obtaining knowledge of causes and effects, our attention has centered on the scientific experiments in spraying to obtain two distinct results:

First—Spraying with a solution of lime and sulphate of copper for the purpose of preserving the foliage; in other words, to ward off all fungus diseases, and thus to stimulate the growing functions of trees and plants.

Second—To destroy the insects by adding arsenic poisons in prescribed quantities. Under this method we keep the trees in good growing condition during the entire summer season, thereby counteracting a weak and tender second growth, which is often the case when trees have stopped growing from some cause during the summer months.

We know that the general farmer and the dairyman will say he has no time. But the general farmer and the dairyman insist on keeping cows and chickens. They say they must have eggs and milk for home use, and they also must have a vegetable garden, yet they feel the time spent in caring for chickens, cows and the vegetable garden is necessary.

Don't you know that if they would put in the same amount of time in an orchard that they spent in caring for the chickens in one year, they could have a profitable orchard, loaded with fruit? It doesn't require so much time. It only requires that the right thing be done at the right time.

Value of Fruits as Food

Unfortunately the value of fruits as food was not rightly understood, until the great world war of 1914. We now understand how necessary fruits are in proper diet and the farmer, of all men, should strive to have an orchard, which by proper selection and care, would enable him to have fruit every month in the year, because apples can be selected which will bear in July and then on, plus the long-keeping varieties which will afford him fresh apples by proper storage until in June.

In June the strawberries and cherries are ripe—in July raspberries, in August the blackberries and peaches, and so on thru the year. He will be assured of health giving fruits, which may be regarded as the most refined and the most delicious of our natural food products. The productive aroma added to the presence of essential acids, their refreshing juices, together with their valuable vitamins, salts and acids give them an important place in the category of useful food stuffs.



DUSTING MACHINE

The new Dusting Machine manufactured by the Niagara Sprayer Company of Middleport, New York, is very rapid, and especially valuable in combatting insects and diseases in nursery work. Instead of applying the poison in liquid form the machine is designed to apply the poison in finely powdered form.

The Greening idea is to apply poison to prevent the attack and spread of insects and disease, rather than destroying the pests after they have begun their damage upon the trees, etc. For that reason Greening's Trees are diseaseless trees.

Fruit is the least taxing to the digestive organs of all food stuffs. The nutritive material which they contain is ready for immediate use which accounts for the almost immediately refreshing effects experienced by the fatigued person from the drinking of fruit juices and their great popularity, especially in seasons of the year when the depressing effects of exercise are most generally felt.

Are you going to be one of the number who will invest and reap the benefits by planting fruits?

We have shown you that fruit is a profitable crop. That it is in reality the most profitable crop that can be grown. And in conclusion we ask you to carefully read the matter in this chapter, because it conveys a great truth, and if this should lead you to plant an orchard and care for it, you will find as the years roll round, you have planted wisely and well.

Finally:—There is a great satisfaction in having done something for humanity aside from personal profit. If you plant fruit for profit you will have the double satisfaction of making a profit and also become a public benefactor, in that you are providing wholesome food for your brother man and laying aside a nest egg for your old age and leave a heritage for your posterity.

In the few pages which follow we give brief directions regarding selection, care, varieties, etc., but for complete detailed instructions, we refer you to GREENING'S NEW BOOK ON HORTICULTURE, which we give away free to all customers who buy \$20.00 worth of stock or we send it postpaid on receipt of 50c. This little booklet gives all the necessary information required to properly plant and care for an orchard.

The Best Trees to Plant

The best trees to plant irrespective of climate and location are those grown in a cool temperate climate. In buying do not allow price consideration to enter, as a few cents more per tree paid to a reliable nursery will prove many times more profitable when the trees you plant come into bearing. Keep in mind that not all varieties have straight, smooth trunks. This should be taken into consideration when your stock is received.

Selection of Varieties

Before planting an orchard for any purpose it is well to consult those with experience and knowledge of the subject. This is especially true if you intend to plant a commercial orchard. Our knowledge is at your service free of charge should you wish to consult us. If you prefer we suggest that you write your State Experiment Station. Their advice is always good and may be safely followed.

Intercropping and the Use of Fillers

To plant an orchard of apples and wait for it to come into bearing for commercial purposes is one that few farmers or fruit growers care to undertake without receiving some returns from the land occupied and the labor and expense connected with it. This may be overcome by growing bush fruits, annual crops of early bearing or by the use of the varieties named below which are generally grown as fillers. But if fillers are planted, do it with a determination to remove them just as soon as they begin to crowd the other trees or when the permanent or standard trees come into bearing. Also if the filler plan is adopted, you must make greater efforts to conserve the moisture and preserve the fertility of the soil.

Peaches and plums make good fillers in most localities. Pears should not be planted among apples where clean cultivation or mulch culture is practiced. Of the apples, Wagener, Grimes Golden, Duchess of Oldenburg, Wealthy, and Yellow Transparent are successfully used as fillers.

Mixed

Many varieties will not bear well when planted alone or in large blocks because some varieties of fruit are more or less self-sterile. They require the pollen of other varieties to fertilize and cause the setting of fruit. Inasmuch as all varieties benefit by cross pollination, it is good practice to plant not more than four or five consecutive rows of one variety in a block.

Self-Sterile Varieties

Of the apples which are more or less self-sterile are: Yellow Bellflower, Chenango, Gravenstein, Tompkin's King, Northern Spy, Primate, Roxbury Russet, Esopus, and Tolman Sweet.

Varieties

Self-Fertile

The apples which are mostly fertile are: Baldwin, Greenings, Duchess of Oldenburg, Red Astrachan, and Yellow Transparent.

PEARS more or less self-sterile: Angouleme, Anjou, Bartlett, Clairgeau, Clapp's Favorite, Howell, Keiffer, Lawrence, Louise, and Sheldon.

PEARS generally self-fertile: Bosc and Seckel.

PLUMS more or less self-sterile: Golden Drop, Italian Prune and Satsuma.

PLUMS generally self-fertile: Burbank, Lombard, Damsons and Bradshaw.

(For a more extended discussion of this subject see Bailey's Principles of Fruit Growing.)

Evergreens

After planting soak the ground thoroughly and apply a thick covering of strawy manure or some other mulchy material over the surface of the ground around the tree to retain the moisture.

Shrubby

Trim off all the ends of the roots and plant about two inches deeper than they stood in the nursery. After planting some of the limbs should be removed and some cut back, depending upon the nature of the shrub as well as its size when planted. It is well, usually, to remove about one third of the foliage bearing area. If a very compact bushy effect is desired more severe cutting back of the limbs is necessary.

Roses

Insist that all roses you buy are field grown. Furthermore, budded roses of the Hybrid Perpetual, Hybrid Teas, and Teas are far more successful than those grown upon their own roots developed from soft wood cuttings. Own root roses do not thrive well in this climate, although cheaper than budded roses they are the most expensive in the end. Best soil is the clay loam. Set the plants four inches deeper than they stood in the nursery. All suckers growing out of the ground should be removed as soon as seen. All must be pruned more or less when planted. Do not neglect this. As a general rule, the more vigorous a variety the less it should be pruned. All weak or decayed wood should be entirely cut out, also any shoots that crowd or prevent light and air.

Spraying

If fruit is to bring the highest market prices the trees must be sprayed. Spraying has come to be an established part of fruit growing. Every State Experiment Station, as well as the United States Department of Agriculture, issues bulletins on when and how to spray. Our new "GREENING'S BOOK ON HORTICULTURE" described on page 34, gives full instructions how to spray.

Distance for Planting

Apples should be planted from 32 to 40 feet apart each way. Most of our old orchards were planted too closely. When planted too closely they not only interfere with each other but also hinder spraying and cultivation. The variety will determine the proper distance to plant, the planter considering whether the variety is an upright or spreading grower: for example, the Northern Spy as compared with the Wagener.

The Site and Soil for an Orchard

In selecting a site for an orchard, the question of soil and location is of utmost importance. An elevated location having good surface and air drainage is preferable. Under-drainage is recommended on level ground for best results. Drainage makes the soil loose and warm.

Care of Young Trees Before Planting

Immediately after receiving the trees or plants from the nursery they should be thoroughly soaked and wrapped and covered to prevent drying out. Take them home at once and heel-in without delay. If frozen, put in cool cellar where frost will gradually come out. To heel-in a trench should be dug at least 18 inches deep. Loosen the lower band on the bundle, wet the trees thoroughly and place them in the trench. Cover the roots and press the soil down firmly around them. All trees when heeled-in should be placed in the trench with tops leaning toward the south at an angle of 45 degrees. Soil should be carefully placed around the roots to exclude all air and the trees well banked for protection. It is advisable to cover about two-thirds of the trees with soil. If to be heeled-in over winter select a place where water will not stand, away from buildings and meadows where mice will not injure them. Strawberries, raspberries and blackberries, if well dampened, can be kept in the cellar until ready to plant.

Preparation of the Soil for an Orchard

Never plant trees in sod. Trees should be given a good start in their younger years. An orchard is planted for a lifetime. The soil should be prepared better than for ordinary crops. An orchard planted after a cultivated crop such as corn or potatoes will do best all things considered. Under-drainage of wet soils is absolutely necessary.

Laying Out and Planting

After the soil is well prepared a hole should be dug sufficiently large in width and depth to admit the roots in their natural position with some loose earth in the bottom of the hole. Trees should be planted about two inches lower than they stood in the nursery. Place the tree in position; fill in fine mellow soil around the roots with the hand, arranging all the roots in their natural position, packing the soil firmly around them and under the crown. Do not press down on the tree to make it fit while planting.

Fill up the hole within two inches of the top and press down the earth with the foot, being careful not to break or bend the roots. Then throw in about a gallon of water and fill up the hole level with loose soil, but do not tread upon the loose soil.

For spring planting level the soil around the tree after planting. In the fall bank up against the tree a little soil after planting and remove to a level in the spring.

In planting trees after the stakes have been set a planting board will be found beneficial. Its use will enable the planter to keep his trees in exact line, which will render cultivation easier and make the orchard more sightly.

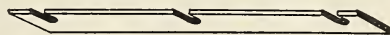


Fig. 1—The planting board made from inch board 5 feet long, 3 inches wide. Cut notches for stakes.

The Use of the Planting Board

Fig. 1. The planting board is made from an inch board about 3 inches wide and 5 feet long. Cut shallow notches for stakes as shown. Round off corners for center notch. End notches must be equally distant from center notch.

Fig. 2. Planting board placed against center stake and then end stakes pushed down firmly into the ground at end notches. Always place the board on same side of rows of stakes.

Fig. 3. Remove planting board and center stake but do not disturb the end stakes. Place the tree directly over the center hole and in position you want it to set and make outline of hole large enough to let the tree enter the hole freely. Dig the hole deep enough to let the tree down about 2 inches deeper than it stood in the nursery but place dirt on opposite side of hole and not as shown in the drawing of Fig. 3.

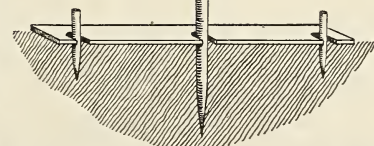


Fig. 2—Planting board and stakes placed in position before digging holes.



Fig. 3—Remove planting board and center stake, don't disturb the small stakes. Dig the hole.

Fig. 4. When hole is dug, put in the tree and then place board with notches to end stakes. The tree should come up straight at the center notch where the center stake stood. Keep tree at this notch and upright till hole is sufficiently filled in to hold tree in its place. Carry board and end stakes with you. End stakes should be prepared about 12 inches long, round, sharpened and smoothed to fit their notches.

Do not forget before planting that all broken roots or ragged ends should be cut off smoothly with a sharp knife so that when planted the cut surface will lie upon the bottom of the hole.

Pruning When Planting

The training of young fruit trees from the time of planting up to the time of fruiting should be along the lines of developing a strong frame work consisting of 4 or 5 main lateral branches spirally arranged around the trunk at different points to avoid crotches. The main branches should be headed back each year to force them to become stocky and bear a large crop without breaking down.

APPLE trees may be trimmed back to about four well-developed branches properly distributed around the trunk and these branches cut off so that about three buds are left on each branch. Remove the lower buds as they will produce unnecessary branches.

PEACH trees unless very large, should have all branches removed and top cut off so as to be from two feet to thirty inches high according to size of tree.

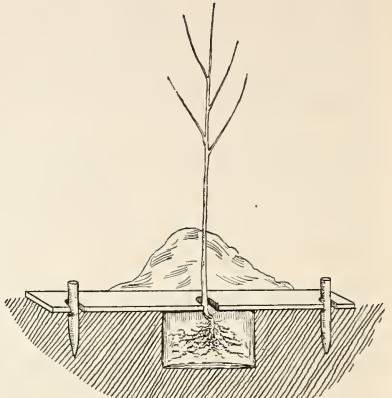


Figure 4

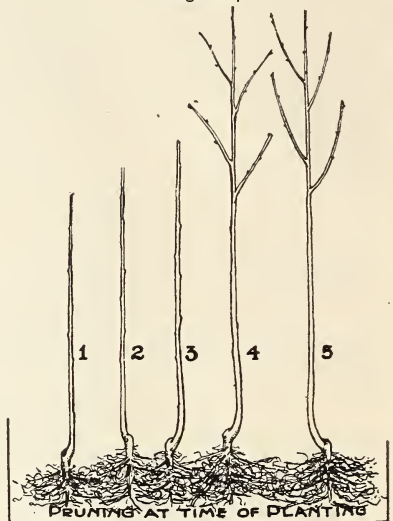


Fig. 1, Peach Tree. Fig. 2, One-Year Apple. Fig. 3, One-Year Cherry or Pear. Fig. 4, Two-Year Apple. Fig. 5, Two-Year Cherry or Pear.

PLUM and CHERRY trees should be started with some of the natural limbs on. If these branches seem too long and slim, cut off the ends according to the growth of the tree. It is not well to prune cherry and plum back any more than to thin out and nip off the tips of remaining branches.

PEAR trees usually grow the top close together and should be thinned out on the inside and about three or four branches left. Remove any buds that will start undesired branches.

QUINCES are of a shrub nature and may be kept in a tree form if desired by leaving only one stem to grow upward. Cut back when planting if head is thick.

RASPBERRY and BLACKBERRY plants usually come to the planter cut off. The stock should be cut to about 8 to 12 inches long if not already done when received.

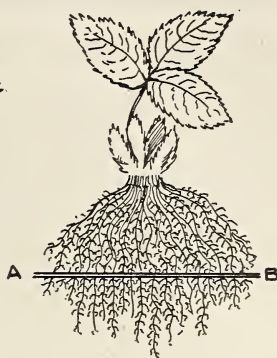
STRAWBERRY plants should have most of the leaf stems removed and root ends cut off when ready to plant. (See illustrations on next page.)

Cutting off ends of roots of all fruiting trees and plants invigorates new growth.

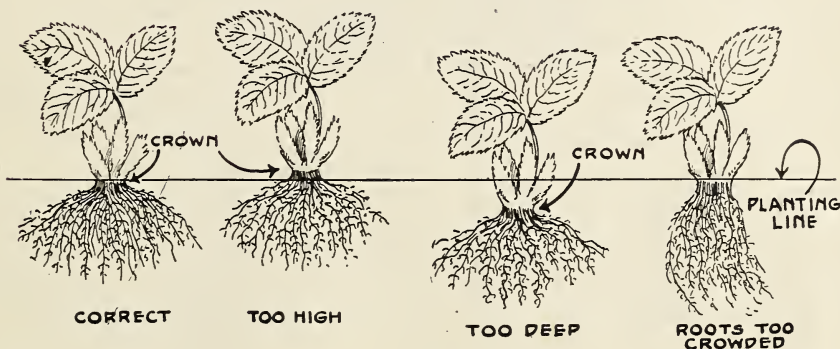
Grapes For proper distance apart at which to plant, see Planting Table shown elsewhere. Place the vine in hole so that the first bud next to the stem will come on a level next to the surface. After planting, trim the vine to two buds. A stake should be driven at each vine to support the canes the first two years.



Before Planting



Prune Roots Before Planting



Small Fruits

See Planting Table for distance apart at which to plant. Plant all small fruits about one inch deeper than they stood in the nursery except strawberries. After planting cut back the tops to 4 or 5 inches from the ground.

Ornamental Trees

Plant same as fruit trees except that larger holes must be dug to accommodate the roots. Two-thirds of the tops should be cut off on all ornamental trees except the Cut-leaved Birch, Horse Chestnut or hard Maples. These varieties should not be headed-in.

"The Peony is the flower for the million and the millionaire."

Require less care than any other and the new kinds are fragrant.

Greening's New Book on Horticulture

THIS new and thoroughly up to the minute book on the practice of Horticulture in all its practical phasas will be sent for the low price of 50c by mail prepaid or is given free with any order of nursery stock amounting to \$20.00 when requested. This is a valuable book of reference. It will be kept and referred to because it contains more matter of vital interest to the fruit grower than any similar publication extant at the price.

It has been prepared to take the place of both Greening's Fruit Growers' Guide and Greening's Book on Fruit and Vegetable Culture. You will now have in one cover, everything of value relating to the practical side of fruit growing as well as that of ornamental stock.

We give Table of Contents below:—

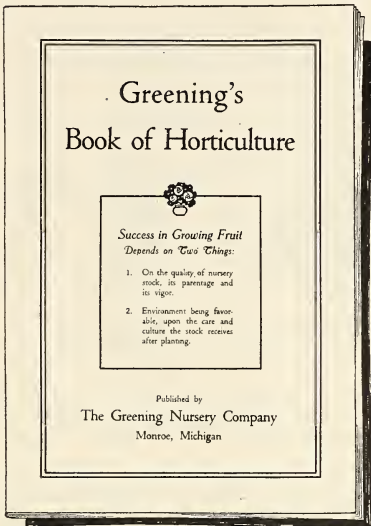


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Chapter I	Preparation incident to setting out fruit stocks and the general care of same
Chapter II	Small fruits
Chapter III	Picking, Packing, Shipping and Marketing
Chapter IV	Practical Suggestions on the Planting and Pruning of Ornamental Trees, Shrubs, Evergreens, Roses, Perennials, etc.
Chapter V	The Pruning of Shrubs
Chapter VI	Diseases and Insects and Their Control
Chapter VII	Spraying, including Formulas for Insecticides and Fungicides

Ask our representatives for this book or send 50c direct to us and same will be sent by return mail postpaid.

Distances for Planting

Apples	32 to 40 feet apart	Quinces	10 to 16 feet apart
Pears, Standard	18 to 20 feet apart	Grapes	8 feet apart
Pears, Dwarf	10 to 15 feet apart	Gooseberries & Currants	4x6 feet apart
Sweet Cherries	20 to 25 feet apart	Raspberries, Red	2x7 feet apart
Sour Cherries	18 to 20 feet apart	Raspberries, Black	3x7 feet apart
Plums	18 to 20 feet apart	Blackberries	2x7 feet apart
Peaches	18 to 20 feet apart	Dewberries	3x7 feet apart
Apricots	18 to 20 feet apart	Strawberries	1x4 feet apart

Number of Trees and Plants to an Acre

At 4 feet apart each way	2723	At 18 feet apart each way	134
At 5 feet apart each way	1742	At 20 feet apart each way	108
At 6 feet apart each way	1210	At 25 feet apart each way	70
At 8 feet apart each way	681	At 30 feet apart each way	50
At 10 feet apart each way	435	At 32 feet apart each way	40
At 12 feet apart each way	302	At 40 feet apart each way	27
At 16 feet apart each way	170	At 45 feet apart each way	22

Greening's Pedigreed Fruit Stock



MR. ROY E. GIBSON
*Scientist in our Department of
Fruit Bud Selection*

Mr. Gibson is well known to the large fruit growers of the country. He has been with us since 1902. He has a truly scientific mind—in that he is open to conviction on all points. He is neither dogmatic nor positive and those of you who have the pleasure of Mr. Gibson's acquaintance will vouch for his exceeding great knowledge of our vast industry and the honesty of his purpose in our research work.

Mr. Gibson believes from his observations that the possibilities in breeding trees from high producing stock will result in many millions of dollars profit to the fruit growers of the United States. We are proud to have a man of his character and ability associated with us.

Professor C. P. Halligan of the Michigan Agricultural College than whom there is no better authority has this to say:

"I have had the pleasure of visiting Mr. Gibson of South Haven, Michigan, who has been making tree records for you and furnishing you buds and scions from these records for the propagation of young stock and I am very much interested in the work he is doing. I realize that stock propagated from such record trees is a great insurance on permanence and the desirableness of the fruit of young trees propagated from such selected parents. It is very reasonable in these days of scientific breeding to expect that trees to produce fruit of the most desirable type of the variety should be selected for propagation.

SINCE 1907 we have maintained a department of Scientific Research and we are still continuing the work. We have always been positive that by selecting buds and scions from high producing trees the law of "like produces like" would be applicable to fruit trees as well as to grains and citrus fruits.

The results we get each year proves that our belief is justified. It is well known that for centuries domestic animals have been improved for certain purposes by selection of suitable parent specimens. This was the beginning of all pedigreed stock. Later the selection of seeds and the improvement of barleys, wheats, rye and corn was taken up—also the improvement of citrus fruits thru bud selection.

We find in an article written for the American Fruit Grower recently on "Improved Citrus Fruits thru Bud Selection" by Professors Corbett and Shamel this: "As our work has progressed records have accumulated concerning the production



A FOUR-YEAR SOUTH HAVEN PEACH TREE

Note the vigor of this variety. Our Mr. Roy E. Gibson is fully six feet in height. Always modest he excused his being in the photo, so that we could show size and growth by using him as a criterion by which to judge. This is tree No. 13. You will notice its number on trunk but barely discernable in cut. Record of this and all other check trees in our Pedigreed Record Book may be seen at our office if you are interested.

of trees. There has been a remarkable and striking consistency in the behavior of trees with reference to production. The productive strains continue to be productive—non-productive strains used consecutively from generation to generation in propagation continuing unproductive."

At the Mid-Winter Meeting of the Michigan Horticultural Society held in Grand Rapids from December 5th to 9th 1922, George Hawley, its President, in his opening address said among other things this:

"But the whole fruit growing business is founded upon the work of the nurseryman. What he sows we reap. The great bulk of trees are raised and distributed by average men of honesty and integrity, whose business is raising and distributing trees—not growing fruit. The great value of fruit trees distributed are of parentage buds taken from growing nursery stock. **BACK SOMEWHERE THE ORIGINAL PARENT BUD WAS TAKEN FROM A FRUIT BEARING TREE. WHERE THAT TREE GREW—WHEN THAT BUD WAS TAKEN OR WHAT TYPE OF FRUIT THAT TREE BORE ARE MATTERS OF VITAL CONCERN TO YOU AND ME!**"

"We demand the pedigree of our cattle, horses, sheep and hogs when the individuals in all their perfection are before us. Is it not of more importance that we demand the pedigree of a little tree whose characteristics cannot be determined for years?"

In the 49th Annual Report of the Michigan State Horticultural Society issued January 1st 1921, we find a reprint of a talk given that society by W. H. Cutback of Flint Michigan on "The Importance of Bud Selection."

Among other things Mr. Cutback said: "By organized demand we could dictate to the nurserymen that we want pedigreed apple, peach and other trees and demand it. Surely the best is none too good. We could thus build up our orchards, get rid of the boarders and have only producing trees in them.

"Mr. Shamel who is a recognized authority on bud selection in the West has suggested that deciduous fruit growers can well take up his methods and has expressed himself as gladly willing to lend any possible assistance in organizing this work.

"In conclusion, since bud selection has proven conclusively to be one of



A "PARENT" OR "MOTHER" TREE

Blood tells in Horticulture as sure as in the genus Homo. Like produces like is proverbial. The exceptions only prove the rule. Here is Northern Spy tree No. 29, a record of which we have in our Research Book of Records. Trees used for cutting propagating wood are judged and selected on their performance only. The tree above is in the famous Northern Spy orchard of Farley Bros. at Albion Michigan. Read what the Albion Evening News has to say about this and other trees in their orchard which we reprint on page 33 of this catalog.

our best means of improving our varieties let us at least give it serious consideration and a trial in Michigan."

We, the Greening Nursery Company, have for years been following the plans mentioned by Mr. Hawley and Mr. Cutaback as being ideal and we have advised fruit growers to visit our office where we can show them detailed records of each tree from which we cut our buds and scions!

To produce a good fruit tree requires at some period in its history that it be budded, because you cannot take the seed of any fruit and get the same variety. This is one of the mysteries of nature, which man has not solved, but the nurseryman has circumvented nature's laws by cutting buds from the fruit they wish to perpetuate and budding it. This is known as asexual reproduction. We know that the fruit produced from the bud will be the same as the bud.

If you cut a bud or scion from the Northern Spy tree and bud it on any other variety like Winter Banana, Jonathan or Yellow Transparent, it matters not what variety, the fruit produced on the limb resulting from the Northern Spy bud, will always be a Northern Spy apple.

To secure extra fine stock we are constantly on the lookout for improved strains, so that we may renew it and have it grow better each year. Experience justifies us in continuing this practice and the fruit gathered from trees grown from our selected stock is making records that are remarkable.

You are familiar with the potato. To improve the potato, the different Crop Improvement Associations follow the same general plan that we do in improving fruits, because they are both propagated by asexual reproduction.



BUD STICK
(Cut B)

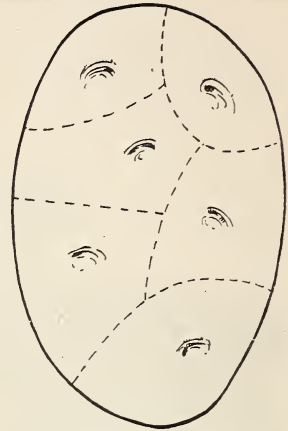
The cut above represents what is known to nurserymen as a bud-stick. It is a piece of a limb of one year's growth cut from a fruit tree for the purpose of propagation. The wedge shaped cuts are made around the buds or eyes situated underneath the petiole or leaf stem. This part is then inserted underneath the bark of a wild seedling of the same genus of fruit tree. (See cut C.)

Look at the illustration of the potato on this page. We must cut these seed pieces large enough to furnish food value for the bud, or eye of the potato to start the growth and in budding fruits we cut the bud as shown in the illustrations (which please refer to) and insert it as shown. The bud then derives nourishment from the sap which rises from the host plant and thus we succeed in getting the variety of stock we desire to perpetuate.

The Michigan Potato Grower's Association as well as the potato growers of Wisconsin, Red River Valley and in Maine have increased the production of potatoes per acre by the selection of tubers from hills that are healthy in appearance and produce a large number of tubers.

Our purpose in showing these illustrations is to explain the well-known fact that the production of the Potato has increased under bud-selection as practiced by that skilled horticulturist Mr. Luther Burbank and also to show you that the potato is reproduced from buds or eyes or asexual reproduction just as the fruit tree is reproduced.

By our careful bud selection covering thousands of acres of orchards under constant inspection we have found fruit trees vastly superior to others in the characteristics which make profitable commercial fruit trees. We have propagated from these trees in the same manner as a careful potato grower would select and propagate from its best hills of potatoes.



POTATO (Cut A)

Dotted lines indicate how a potato is cut for seed purposes. The "eye" on these seed pieces are the buds which will develop into a new plant when properly planted.



WILD SEEDLING
(Cut C)

The cut above shows that portion of a wild seedling and how the bud or eye is inserted underneath the bark in propagation. The wedge shaped cut shown on face of seedling is that portion taken from bud-stick (see cut B) This will grow and become a part of the wild seedling and the following spring all the wild shoots and buds are removed and the growth of the desired bud will be nursed, thus reproducing a new tree by the asexual method which is identical to that of the potato.



The Graduating Class in Horticulture and Landscape Gardening of the Michigan Agricultural College taken in June 1922 on the lawn at our Office Building in Monroe. These young men came here to inspect our Nursery with Professors Halligan and Marshall. We have the pleasure of entertaining these classes annually for many years and esteem it a privilege. A visit to our Nursery is an inspiration to any one interested in Horticulture or Landscape Gardening. You are always welcome, too.

Pedigreed Trees Bring Results

In the Albion Evening Recorder, published in Albion Michigan on Tuesday, November 21st, 1922, may be found this article:—

"TEN NORTHERN SPY TREES AT FARLEY BROS. ORCHARD ARE MAKING GREAT RECORDS."

This article was not inspired by us and the publicity given these trees was because of the fame Farley Bros. Orchards are bringing to Albion in Calhoun county, this state. The Evening Recorder goes on to say:—"In the springs of 1909 and 1910 Farley Bros. made some extensive plantings of fruit about 1200 apple trees being interplanted with peach and pear. Among the varieties was the Northern Spy, in fact a goodly percent of the permanent orchard. They were planted 40 feet apart with a filler tree in the center of each square. Two years ago this fall (1920) J. R. Keeney of Tecumseh, a heavy buyer of standard apples, who visits many orchards in the course of a year, bought the apple crop of Farley Bros. He noted the heavy crop and such wonderful apples, large size, high color and perfect flavor on these young Spy trees. Later he met Mr. Roy Gibson of South Haven Michigan, who is in the employ of The Greening Nursery Company of Monroe, from whom these trees were purchased and suggested to Mr. Gibson that he visit this orchard and see these remarkable trees for himself. As Mr. Gibson has been keeping records for his Company, with the idea of taking budding stock from such trees to be used in building up superior strains he did so.

"On his first visit he marked ten trees, Farley Bros. agreeing to accurately measure the fruit from each tree at picking time and report to him. The first year these ten trees produced 65- $\frac{3}{4}$ bushels. They were ten and eleven years old. The lowest yield was 30 bushels of apples in a block of seventy-five trees. The highest yield was 14- $\frac{1}{4}$ bushels. This year the highest yield was 117- $\frac{7}{8}$ bushels, the highest yield being 30- $\frac{1}{4}$ bushels, or over 10 barrels from one tree. This particular tree during the three years of record has yielded 54- $\frac{7}{8}$ bushels of wonderful fruit. Apple growers from many sections have visited these orchards this year and looked with amazement on these young trees with their exceptional crop. We already have pedigreed strains in live stock. It doesn't seem far off when the nursery stock will be offered with a guaranteed performance of the parent trees."

Now if you are open to conviction and wish to buy trees, wouldn't you personally



"TREES YOU CAN TRUST"

It is fruit like that shown above which proves the worth of our stock. The above was gathered from five-year-old trees on the farm of Mr. A. L. Ross, Rochester, Mich. The stock for his orchard was grown and furnished him by us.

prefer trees budded from parent stock such as has been described rather than to take chances on trees that you know nothing about and of which you can learn nothing as to their ancestry, even though they be sold at a lower price?

We offer you apples, pears, plums, cherries and peaches all propagated from trees that have earned the right to be classed as "parent" stock or "mother" trees.

Fruit growers can easily protect themselves and we ask all orchardists who are interested in this to insist when placing an order with our salesmen that he show his credentials that he may be sure he will get stock of GREENING'S OWN GROWING.

OUR GUARANTEE

All our stock is guaranteed to be first-class according to grade ordered. In filling orders we exercise the greatest care to have our stock true to label. However, should a mistake happen we will either replace the stock or refund the money after receiving sufficient proof of same. Parties placing orders with us must do so with the understanding that, *we shall not be liable for damages* in such case further than the replacing of all stock proven untrue to name, or refunding money. Do not make a complaint unless you are sure there is a mistake.

Quality In Nursery Stock

By S. W. Fletcher, Horticulturist, The Pennsylvania
State College

*Presented at Recent Meetings of the New Jersey and of the
Indiana State Horticultural Societies*

"The fruit grower has shown little interest in the quality of his nursery stock, other than to ascertain whether it is true to name, free from disease, and of good size. He has not examined into its parentage or history when he buys apple trees. He is likely to send a list of his needs to a dozen nurserymen, with no specifications except variety, age and size, and then accept the cheapest quotation. Nevertheless, there are differences in the value of nursery trees, within the variety, as great as the differences between varieties.

Fruit growing is a long term investment. The orchard is planted for a generation, perhaps longer. Mistakes made in the selection of trees cannot be remedied after planting but are an annual tax upon the business. The doubtful expedient of top-working may be restored to in the case of mis-named tree tops, but nothing can be done to remedy unsuitable roots. When the tree is planted the roots are buried, and that is the end of them, so far as the fruit grower is concerned.

The productiveness and profit of the orchard are as much dependent on the potential qualities wrapped up in these baby trees as on the skill of the grower. A man is what he is mainly through the operation of the laws of heredity and the influence of environment. A fruit tree is what it is, not only by reason of the care of the grower, but also by reason of heredity. There are two ways of securing better farm crops; by better culture and by better seed. There are two ways of securing better orchards; by better care and by better nursery stock, and one is about as important as the other. The man who tries to save five or ten dollars an acre by buying "cheap" trees, without regard to their quality, is likely to lose fifty dollars in the sale of crops for every dollar saved in the purchase of stock.

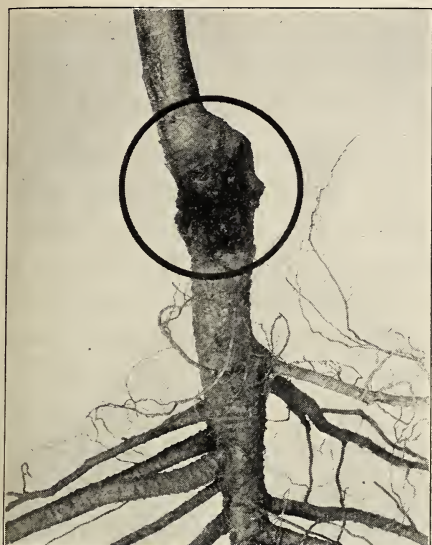
Differences in production, under uniform cultural conditions, may be observed in every orchard. Only a part of this variation

can be attributed to differences in soil, for unproductive trees often stand in the orchard surrounded by productive trees, with their roots interlaced. Undoubtedly much of it is due to the character of the nursery trees which were planted; to variation in the seedling root stocks, to lack of a congenial union between stock and cion, to poor adaptation of the root stock to the soil, and possibly to bud variation. Whatever may be the cause, it is clear that a very large amount of variation does exist, and that this is responsible for heavy losses to fruit growers. One of the biggest problems before nurserymen and fruit growers today is how to standardize nursery stock.

So long as we depend on miscellaneous French crab and cider mill seedlings for apple rootstocks, and on canning factory pits, just so long may we expect marked variation in the nursery row and in the orchard.

Nothing has done more to promote carelessness among nurserymen than the demand of the grower for cheap trees, regardless of quality. If he wants trees true to name, he should be willing to pay for the precautions that may make this possible."

Arranging shrubs properly about a home requires brains. To plant a place—merely muscle.

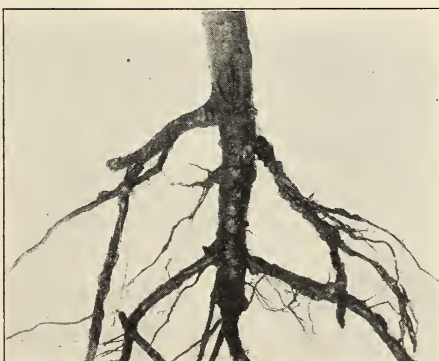


This illustrates the injury caused by the peach tree borer. For years the peach tree borer has baffled the efforts of growers to annihilate them, but the new chemical known as paradichlorbenzene will be found an efficient remedy. Refer to our Book of Horticulture pages 47 and 48 for full particulars as to how to use this preventative and cure.



Root gall shown on the illustration above is a disease found on all fruit stocks but especially on peaches. Young trees effected with root gall never thrive—never grow into a productive tree. They should not be planted.

To protect ourselves against cheap competition we illustrate trees that are diseased and which the grower should not plant. Very few growers can detect these diseases on fruit trees and to better educate the public we illustrate three diseases prevalent on fruit trees, which are frequently shipped out by the so-called "cheap" nurseries. These diseases will be found in all nurseries—no matter how carefully they may propagate. The first-class nursery will cull these out and not ship to their trade. This means a curtailment of the product, because in grading of what is known as "row-run" of nursery stock a certain amount must be thrown out, which is unfit to ship for one reason or another. This is a costly preceding but must be done if the grower is protected. Our grading is very carefully looked after and fruit growers who anticipate a profit from their orchards should read Mr. Fletcher's speech shown on preceding page and bear in mind that price is not everything when buying nursery stock—**QUALITY IS FIRST IN EVERY INSTANCE**—and we offer you stock as listed in this catalog, all of which is high quality, graded with extra care—full of life and vigor.



The illustration above shows gall caused by the sting of wooly aphids. This is found principally on apples. Trees effected as shown will not thrive and should not be planted.



Apple Seedling
Straight Root

Apple Seedling
Branched Root

REASONS WHY GREENING'S TREES ARE ALWAYS WELL ROOTED

IT should be understood that for all fruit trees we propagate only whole-rooted, transplanted, branched seedlings are used. On account of the long growing seasons and more favorable and better soil and climatic conditions in Europe, large, stronger and more vigorous fruit tree seedlings are grown there than it has been possible to grow in America.

Mr. Chas. E. Greening, President of The Greening Nursery Company during his recent travels on the European Continent has given special attention in making a thorough study of certain localities best adapted for the propagation of fruit tree seedlings. Certain districts in Europe where soil, season and location was

most idealistic were selected for the growing of the fruit tree seedlings to be used in our nurseries.

HOW BRANCHED FRUIT TREE SEEDLINGS ARE GROWN

The fruit seeds are planted in December and when about two inches high are taken up and transplanted six inches apart in long beds and given careful hand cultivation. This method of transplanting changes the growth in the formation of the root system from a downward root to a cluster of splendid fibrous branched roots, as will be seen in the photographs herewith presented. The seedlings when fully matured are dug, graded and shipped late in the fall to America.

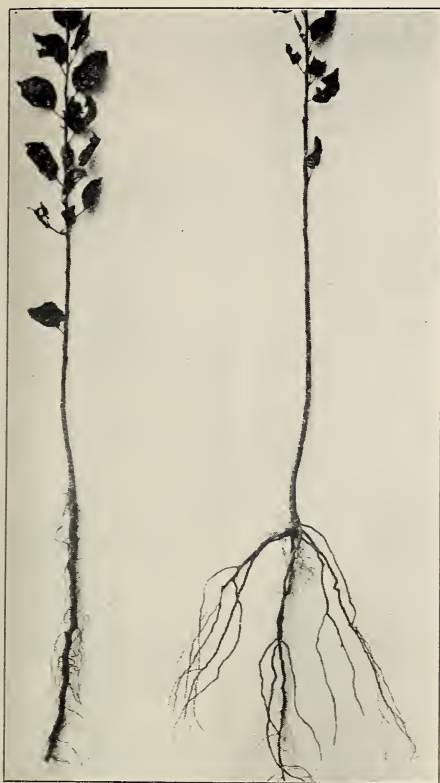
It should be remembered that the cost of the selected first-grade seedlings, averaging six millimeters and over in caliper, which is the only grade and size we plant; is more than double of straight root stock of lower grades.

ADVANTAGES OF THE BRANCHED ROOT SEEDLINGS

A practical experiment made with straights, also transplanted branched rooted seedlings, produced a growth the first season of from 12 to 24 inches greater on the transplanted, branched-root seedlings than those budded on straight root seedlings.

THE EVIDENCE OF WHY "GREENING'S TREES" have strong and well developed masses of roots is shown by the illustrations of one year old straight and branched roots shown on this page.

We use the branched roots exclusively. They make the best orchards.



Plum Seedling
Straight Root

Plum Seedling
Branched Root



Pear Seedling
Branched Root

Pear Seedling
Straight Root



Our fruit trees
are the offspring of
carefully selected
parent stock.

Double-Grafted Stock

SOME excellent varieties of fruit unfortunately inherit undesirable characteristics. These may be slowness of bearing, scraggly growth or tendency to collar rot. A few of these fruits are too valuable to discontinue and nurserymen have studied ways to circumvent nature or the natural characteristics of the tree and have succeeded in doing so by using the double-grafting or top-worked method in propagating these varieties of apples and pears for the fruit grower. The cut at right shows the graft and how completely union has taken place between scion and stock.

Of apples the two varieties which should be double-grafted for best results are Steele's Red and Grimes Golden. Of pears: The Bosc.

The reasons why we double-graft these varieties is explained below. The quality of each deserve that they be perpetuated because they have no superior among apples or pears in their type, purpose and character.

Steele's Red (Sometimes Called Canada Red or Red Canada)

Every fruit grower knows that this variety is one of the very choicest and most valuable variety of winter apples. Because of its beautiful, rich red color, its excellent quality and its wonderful keeping and shipping

qualities. It brings from one to two dollars more per barrel than other winter varieties. But on account of its poor and feeble growth this variety has generally been discarded from the list of profitable fruits.

By double-grafting Steele's Red on the stem of the Gideon (considered to be the most vigorous grower and hardiest of all apples) and the use of the French Crab root as a foundation all weakness of growth has been eliminated.

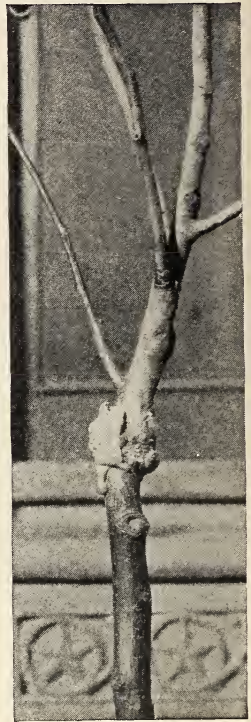
Grimes Golden

The weakness of Grimes Golden is its susceptibility to collar rot. This tendency is more serious with this variety than any other, hence the tree bred as usual is short-lived. We overcome this defect by the double-grafting process. The trunk of this variety is also subject to sun-scald when grown as usual but by double-grafting we secure a tree that is free from every fault and as long-lived as any.

Any one having a desirable strain of fruit can have them double-grafted by us provided arrangements are made in proper time for the shipment of the scions. One hundred trees is the minimum number we can contract to double-graft.

Bosc Pear

Among pears the Bosc is known as a notoriously slow grower but by double-grafting we have been able to produce a strong, thrifty and productive tree. The quality of the Bosc pear is undisputed as the most delicious of any pear grown for dessert purposes and a Bosc orchard of double-grafted trees will bring the very highest prices in the commercial markets. The photograph shown on next page of a double-grafted Bosc orchard on the farm of Mr. G. W. Griffin at South Haven, Michigan, shows an orchard which has long been the attraction of many horticulturists. This orchard enjoys the reputation of being the most profitable in the entire Michigan fruit belt. These trees were supplied by us.



THE GRAFT



TOP-WORKED BOSCH PEAR ORCHARD

A photograph of an orchard of top-worked Bosc pears on the farm of Mr. G. W. Griffin at South Haven, Michigan. This orchard has long been the attraction of many horticulturists from far and near, and enjoys the reputation of being the most profitable fruit orchard in the entire Western Michigan fruit belt. Unlike other varieties of pears, this orchard of Boscs yields a heavy crop regularly each year. When you plant an orchard of Greening's Top-worked Bosc Pears you have one of the greatest assets any farm can possess.

The expense of growing an orchard of pedigreed trees is no greater but—the net returns are.



Picture of Dr. Gerow's Winter Banana Apples, which kept an entire year in an ordinary cellar, told about in the accompanying story.

The Winter Banana Apple

Highest Honorable Mention American Pomological Society
Fruit Exhibition At Philadelphia, 1889
Introduced by us in 1890

The Winter Banana apple is now known to every fruit grower and nearly all fruit users in America. Among the many varieties of apples there are few equals and no superiors to this wonderful fruit. We knew this when we first tasted this delicious apple. At that time Mr. Greening pronounced it the most beautiful and delicious apple that he had ever eaten or seen. This does not need to be proven to those who have grown or tested it. Merely to taste it is to be convinced. The Winter Banana is in a class distinctively its own. We want every lover of apples to know about it. We want you to know about it and we feel that so long as there is one home orchard without it, we shall continue to place its merits before the growers and lovers of fine fruits.

History of the Winter Banana In the early eighties Mr. David Flory of Adams-borough, Indiana, planted an orchard of fifty apple trees. These he calculated to raise from seed, with the object in view of top-grafting them later on. Among these he discovered one that bore fruit four years after planting. The fruit was different from any that Mr. Flory had ever seen, and immediately attracted his attention. During an exceptionally cold winter, nearly every apple tree in his orchard was winter killed, but this particular tree stood the test with no injury whatever. Mr. Flory named it the Winter Banana, on account of its wonderfully delicious flavor and aroma. The Winter Banana became noted first by these distinctions.

In the Year 1890 The Greening Nursery Company purchased the exclusive right to propagate the Winter Banana. Our prophecy at that time was that it would become a standard market apple. This prophecy has been most liberally fulfilled. Today we have a new and larger vision of its possibilities, which is based on its present popularity. We believe it is destined to be one of the best known and most widely grown apples.

An Apple of Distinctive Flavor There is no apple like it. Its striking beauty, its great size and marvelously perfect shape attract immediate attention. Its distinctive coloring of golden yellow, shaded by a beautiful bright red, cannot be equalled. But the taste—ah, that's the thing—a delicious, spicy and sub-acid combination distinguish it from any other apple ever grown. To taste it is to be won by it. Many of the best hotels specify this variety for use on the table. They are often seen in restaurant windows as specimens of the baked apples that are served within.

Wonderful Keeping Qualities Cheboygan, Mich., Aug. 5th, 1919.
Gentlemen: I send by this mail three Winter Banana Apples grown on your trees. I should think it would make you feel chesty to see your trees doing themselves so proudly. As I stated before, these apples were kept in an ordinary cellar belonging to my foreman, in the orchard of George H. Goodwin. I shall try and send another sample on Sept. 1st.

Yours very truly,

A. M. GEROW.

Did you ever pick an apple off the tree, pack it away on a shelf in the cellar and then go down a year afterwards, and find it is fresh and rosy and full of flavor and fit for the table? Dr. Gerow did this with the Winter Banana.

It is Advertised by Its Loving Friends Neither Dr. Gerow nor the Greening Nursery Company are the only friends of this wonderful apple. Read what others say:

MR. C. H. WHITTUM, of Eaton Rapids, Mich., names the "Winter Banana as his best variety."

THE WALDORF, New York City's famous hotel, writes us: "The flavor of the Winter Banana and its quality are superb."

DR. L. H. BAILEY, of Cornell University, writes us: "The quality of the Winter Banana is very excellent, and it has a spicy aroma which I like very much. It certainly is a valuable variety."

D. W. LEE asks the American Poultry Journal, July, 1918, as follows: "A friend of mine has a nine-year-old Winter Banana apple tree. He got four barrels of apples from it this year and sold them for \$16.00 per barrel. Are they good apples? I was going to make my leader Delicious, but when Winter Banana apples bring \$3.00 more per barrel than Delicious, it sets me guessing."

THOS. J. RIGGS, Horticulturist of the Iowa Experiment Station, answers him as follows: "The Banana apple is one of the best you can plant. In fact, it is, in my judgment, the most profitable apple in your State. I think that an orchard of Winter Banana and Delicious would be a gold mine."

E. E. WHITNEY, of Hillsdale, Michigan, says in a letter dated October 2nd, 1918: "I am sending you two photographs of Banana apple trees. The first tree bore fifteen bushels of first-class fruit in 1916 and I have just picked seventeen and one-half bushels of fruit from it this year. Jonathan tree, same age, only produced eight bushels. I planted this orchard for fruit for home use, but two crops have paid investment, care, labor, etc."

What We Think The Greening Nursery Company grow all leading varieties of apple trees, but there are none in our estimation which will give as complete satisfaction to our customers as the Winter Banana. You owe it to yourself to give it a trial.

A reproduction of the Winter Banana Apple, actual size, is shown on page 50.

APPLES



WINTER BANANA APPLE

THE apple is justly named the "King of Fruits" and eaten with relish through the seven ages of man. How fortunate are we who live in the United States where the apple is grown to perfection!

In its long continuance throughout the year and in its various uses, it possesses an importance not equaled by any other fruit.

It is the longest keeping fruit known in storage and with an orchard of well-selected varieties, the owner can have fruit the year 'round, it not being difficult to keep

apples in common storage until strawberries are in season.

The chiefest factor in an orchard is well-selected varieties. Many good apples in one section are not so good when grown in another, therefore more important than any one thing is selection of the right varieties.

We are listing only those varieties which will make good. When two or more are given for the same season, you will find them equally choice but perhaps of different color or flavor, so the final choice as to variety is left to you.

Summer Apples

Carolina Red June—(See Red June.)

Early Harvest—Fruit medium size, pale yellow, tender sprightly, sub-acid and very good in quality. Desirable for the home orchard because it is one of the earliest of the summer apples and is excellent for either dessert or culinary purposes. Not a desirable variety for the commercial orchard. Tree a good grower, long-lived, comes into bearing rather early and is moderately productive. Season late July and August.

Golden Sweet—Fruit medium size, attractive clear yellow when fully matured, rich, sweet, very good flavor and quality. Cultivated principally for home use. Tree a good grower, healthy, hardy, long-lived, bears rather young and yields moderate to heavy crops biennially. Season Mid-August, to late September.

Red Astrachan—This is a very beautiful early summer apple of good medium size, yellow, largely covered with light and dark red presenting a striped ap-

pearance with red, rather fine, crisp, tender, juicy, brisk, sub-acid, aromatic. Tree a good grower, coming into bearing rather young. A reliable cropper yielding moderate to good crops. Excellent variety for home use or local market. Season late July to September.

Red June—An attractive little apple uniform in size and shape, deep red over yellow, tender, brisk, sub-acid, very good. Tree moderately vigorous. A pretty reliable bearer and commonly yields good crops. Comes into bearing early. For the home orchard only. Season late July to early winter.

Sweet Bough—A universal favorite for the home orchard. It is one of our finest summer apples having all the good qualities which should recommend a fruit for general cultivation. As a kitchen fruit in its honeyed sweetness and tender flesh it has no equal in its season. Tree comes into bearing rather young, long-lived, and a very good bearer. Flesh white, moderately firm,

fine, somewhat crisp, very tender, juicy, sweet, slightly aromatic, good to very good. Season, August and early September.

Yellow Transparent—This is one of the best extra early apples, being excellent for culinary uses and dessert. Apple sauce made from this variety is not equalled by any other sort. Ripens earlier and is a more reliable cropper than Early Harvest. Excellent for the

home or commercial orchard. Fruit medium or above medium sometimes large, uniform in shape and size. Skin smooth, waxy, pale greenish yellow changing to an attractive yellowish white. Flesh, moderately firm, fine grained, crisp, tender, juicy, sprightly, sub-acid with a pleasant flavor, good to very good. Season late July and August.

Autumn Apples

Alexander—Fruit very large, attractive red or striped medium to good in quality. Suitable for culinary purposes. Uniform in size and shape. Regarded favorably by many fruit growers as an apple for the commercial orchard. In great demand on certain markets where the fruit brings fancy prices. Trees, vigorous and upright grower. Skin, moderately thick, tough, smooth, glossy, somewhat waxy, greenish or pale yellow with lively red or handsome striped and splashed with bright carmine. Prevailing effect red or striped. Flesh, nearly white with faint yellow tinge, firm, coarse, moderately crisp, tender, juicy, mild sub-acid, fair to good. Season, September and October or early November.

Autumn Strawberry (Late Strawberry)—This is an attractive small to medium size apple, pale yellow often almost entirely overspread with bright purplish red dotted and streaked with purplish carmine—prevailing effect bright striped red. More valuable for the home than the commercial orchard because of its habit of successive ripening which requires several pickings. Regular cropper yielding moderate to heavy crops biennially or near annually. Flesh yellowish white, fine, crisp, tender, juicy, somewhat sprightly, aromatic, sub-acid, very good. Season, September to December.

Bietigheimer—Fruit very large, noted for its beauty of form. Color, yellow heavily shaded with red. Quality only fair to good but valuable in colder sections as the tree is hardy and vigorous. Season, September and October.

Chenango (Chenango Strawberry)—Fruit beautiful in appearance above medium to large in size. Color, yellowish white often entirely over-spread and mottled with attractive pinkish red, conspicuously striped and splashed with



YELLOW TRANSPARENT

bright carmine of excellent dessert quality and good also for culinary purposes. An early and regular bearer, hardy and healthy. Fruit begins to mature in September and ripens continuously during a period of several weeks. Fruit does not ship well because flesh is too tender, but is a very profitable apple to grow for local or special market. We especially recommend this variety as an excellent one for the home orchard. Flesh white, moderately firm, tender, juicy, mild sub-acid, very aromatic, good to very good. Season, latter part of August and through September.

Duchess of Oldenburg—(See Oldenburg).

English Rambo—A very much larger and better apple than the ordinary Rambo. It is really an improvement and a very valuable hardy apple. Color, streaked and marbled with dull yellowish red on pale yellowish ground, dots large, whitish. Flesh tender, rich mild sub-acid, fine flavored, often excellent. Does well in all localities. Late autumn.



Cut above shows the autos of the Oakland County, Mich., Horticultural Society when here to visit the nursery. Luncheon was served them in the cellar, entrance of which is shown.

AUTUMN APPLES (Continued)

Fall Pippin—Fruit very large, uniform in shape and size and when fully ripe, of attractive yellow color. Flesh is tender, rich and very good in quality, being excellent for dessert but especially desirable for culinary uses. Tree a strong grower, hardy and very long lived, eventually becomes large or very large. Fruit ripens unevenly. This variety is generally in good demand in local markets but we recommend it more especially for the home orchard as it is one of the most desirable varieties of its season. Color at first, greenish yellow but becoming clear yellow, sometimes faintly blushed. Flesh whitish or tinged with yellow, moderately firm, rather fine and tender, very juicy, agreeable sub-acid, somewhat aromatic, very good. Season, late September to middle December.

Gravenstein—Fruit of good size, attractive appearance and excellent quality; for culinary purposes it is unexcelled by any variety of its season. We recommend it for the home orchard only. Usually not a profitable apple to grow for the commercial orchard. Skin thin, tender, slightly rough, greenish yellow to orange, yellow overlaid with broken stripes of light and dark red. Flesh yellowish, firm, moderately fine, crisp, moderately tender, juicy, sprightly sub-acid, aromatic, quality very good to best. Season late September to early November.

Maiden Blush—This is a beautiful apple of pale lemon-yellow color with crimson cheek. It is especially valued for market or culinary purposes. It makes

very white evaporated stock. It is recognized as a standard market variety and usually sells above the average prices for varieties of its class. In many localities it has proven a very satisfactory variety for the commercial orchard, because the tree is a fine grower, hardy, long-lived, comes into bearing rather young and is a reliable cropper, yielding good to heavy crops biennially or almost annually. It is sometimes injured by apple scab but this may readily be prevented by proper treatment. Fruit medium to above, sometimes, large, uniform in size and shape. Skin thin, tough, pale waxen yellow with crimson blush. Flesh white or with slight yellow tinge, fine, moderately crisp, tender, very juicy, sub-acid, good in quality especially for culinary purposes. Season September to November or December.

Munson—Fruit commonly averages about medium size. It is attractive in appearance for a yellow apple, being pale yellow often somewhat blushed. We recommend it for home use only. Not satisfactory for growing commercially because there is little demand for a sweet apple of its season except in certain local markets. The tree is a good grower, comes into bearing rather early and is a reliable cropper commonly yielding good crops biennially. Skin rather thin and tough, separating readily from the flesh, smooth, greenish-yellow often somewhat blushed. Flesh tinged with yellow, moderately fine grained, tender, moderately juicy, sweet, good to very good quality. Season late September to December.



WEEDING SEEDLINGS

AUTUMN APPLES (Continued)

Oldenburg (Commonly Called "Duchess")

—This variety is one of the most valuable of the Russian apples thus far introduced into this country. It is of good size and attractive appearance; while it is highly esteemed for home use on account of its excellent culinary qualities, it has proved to be one of the most profitable varieties for the commercial orchard. The tree is highly valued because of its great hardiness. It is vigorous, moderately, long-lived, a very reliable cropper, yielding heavy crops biennially, often with lighter crops alternating. The fruit hangs fully well to the tree till it is ripe. It is quite uniform in size and quality, with but a small percentage of loss from unmarketable fruit. Fruit medium to large, averaging above medium, uniform in size and shape. Skin moderately thick, tender, smooth pale greenish yellow or pale yellow, almost covered with irregular splashes and stripes of bright red mottled and shaded with crimson. Prevailing effect red striped; attractive. Flesh tinged with yellow, rather firm, moderately fine crisp, tender, juicy, sprightly sub-acid, aromatic, good to very good in quality for culinary purposes. Season late August and September.

Twenty-Ounce—Fruit very large, nearly round, attractive, green becoming yellowish with broad stripes and splashed red. On account of its size the fruit is

in good demand in the general market and sells at good prices. It is especially esteemed for culinary purposes, but inferior to most other varieties for dessert purposes. It keeps well for a fall variety and stands shipping well. Tree vigorous upright grower. Flesh of fruit whitish somewhat tinged with yellow, coarse, moderately tender, juicy, sub-acid, good for culinary use, second rate for dessert. Season late September to early winter.

Washington Strawberry—Fruit smooth, of good size and pretty good color, fairly uniform in shape but somewhat variable in size, desirable for either dessert or culinary purposes. The fruit hangs well to the tree. The tree is vigorous, hardy, healthy, moderately long-lived, comes into bearing rather early and is a reliable or almost annual bearer. It is a good variety for the home orchard but not as profitable as others of its season to grow for the commercial orchard. Skin rather thin, tough, smooth, somewhat waxy, greenish or yellow, washed and mottled with red, conspicuously splashed and striped with bright carmine and overspread with thin bloom. Prevailing effect striped red. Flesh whitish tinged with yellow, firm, rather fine to a little coarse, crisp, tender, very juicy, pleasant sub-acid, sprightly, quality good to very good. Season from September, October to early winter.

The expense of growing an orchard of pedigreed trees is no greater but—the net returns are.

Winter Apples

Arkansas (Mammoth Black Twig)—Fruit very large. Color, deep red nearly black. Tree hardy and very productive. Very valuable in the west. Good cropper. Season, November to April.

Arkansas Black—The Arkansas Black is one of the most beautiful of apples, a good keeper, and commands a good price in market. The color is a lively red deepening on the exposed side to purplish red or nearly black. The fruit is medium and pretty uniform in size and shape. A good keeper. The tree is not very productive and therefore not very desirable for planting in the commercial orchard. The flesh of the fruit is decidedly tinged with yellow, very firm, rather fine grained, crisp, moderately juicy, sprightly sub-acid, quality good to very good. Season December to April or later.



DELICIOUS

Bailey Sweet—This is a very beautiful apple, distinctly sweet, and of very good quality and averages above medium in size. Skin rather tender, nearly smooth, clear bright yellow largely covered with deep red mottled or obscurely striped with darker red; often irregularly netted markings and dots of whitish or russet gray contrast conspicuously with the red surface. Prevailing effect attractive bright red. Flesh tinged with yellow, firm, moderately juicy to juicy, decidedly sweet, agreeable in flavor, very good in quality. Not a very good keeper. Season, October to January or sometimes later. Not a good commercial variety. Fine for the home orchard.

Baldwin—One of the best and most popular red winter apples. Pre-eminently a leading variety for commercial orchards in the Southern Peninsula of Michigan, in the State of New York, and on the clay soils of Northern Ohio. In the South and Southwest it is not desirable because it there becomes a fall apple and also because it does not attain as good quality as it does in the Baldwin belt. Not only is the Baldwin a standard fruit in American markets, but it is one of the leading apples used for export trade. It is one of the principal varieties handled in cold storage.

The tree is a strong grower, long-lived and vigorous. It is somewhat slow in reaching bearing maturity, but when mature it bears very abundantly. On rather light, sandy or gravelly soils the fruit is apt to have a better color, or at least to color earlier in the season than it does when grown on heavy clay soil. The Baldwin is grown successfully in various soils and under various climatic conditions. It also yields a uniform grade of fruit with a low percentage of culls when kept free from injurious insects and fungous diseases. The fruit is sometimes large to very large; usual above medium; pretty uniform in size. The skin of the fruit is tough, smooth, light yellow or greenish yellow, blushed and mottled with bright red, indistinctly striped with deep carmine. Flecks of russet, or even broken russet lines may occasionally be seen on the base of the fruit. The flesh is yellowish firm, moderately coarse, crisp, rather tender, juicy to very juicy, agreeably sub-acid, sprightly, somewhat aromatic, good to very good. Season, November to March or April in common storage; to May or later in cold storage. Uses, well adapted for general market, dessert and culinary purposes.

Banana—See Winter Banana.

Bellflower—See Yellow Bellflower.

WINTER APPLES

(Continued)

Ben Davis—The Ben Davis is not held in great favor in Michigan, Ohio and Northern New York. It is at its best in the South and Southwest. Very successful as a commercial variety in Virginia, Kentucky, Tennessee, Southern Illinois, Missouri, Arkansas, and portions of adjoining States. It is of second rate quality, but of a good color and an excellent keeper. It often keeps in ordinary storage till May and in cold storage till June or often till July. The tree is very hardy, healthy and vigorous; comes into bearing at an early age and usually bears annually and abundantly. The skin of the fruit is tough, waxy, bright, smooth, usually glossy, clear yellow or greenish mottled and washed with bright red, striped and splashed with bright dark carmine. The flesh is whitish, slightly tinged with yellow, firm, moderately coarse, not very crisp, somewhat aromatic, juicy, mildly sub-acid, fair in quality. Season, January to June.

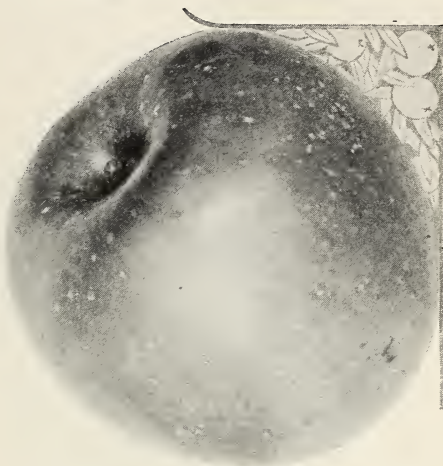
Black Ben—A beautiful dark red apple similar in size and form to the Ben Davis of which it is either a seedling or bud mutation. This is a valuable commercial variety in the Southwest. Season December to April.

Canada Red—See the improved Steele's Red.

Cranes Royal—A large bright red, handsome, firm, crisp, juicy, sub-acid apple. Flavor excellent. Tree a good grower. An early and abundant bearer. Season, December to May. Prof. Taft of Michigan Agricultural College says: A very promising variety of good size, attractive color and excellent flavor. This variety introduced originally by C. F. Gustin of Adrian, Mich.

Delicious—This is a large apple with a surface almost covered with a brilliant dark red blending to golden yellow at the blossom's end. The tree is hardy, healthy and vigorous and bears regular annual crops. The flesh is fine grained, crisp and melting, juicy, delightfully aromatic, moderately sub-acid to give a pleasing flavor. Quality very good to best. Keeping qualities good. In many sections regarded as an excellent commercial variety. Succeeds well in some sections of Michigan. The variety has not yet been grown generally in Michigan to give it a thorough test. An excellent Western variety. Season, November to April.

Ensee—A seedling of the Rome Beauty. Fruit better color than of its parent and considered a better dessert apple



N. W. GREENING

though not so desirable for culinary use. Tree growth and bearing habits are practically the same as those of Rome Beauty.

Esopus (Spitzenburg)—The Esopus, commonly known as Spitzenburg, is the standard of excellence for apples of the Baldwin class, to which it naturally belongs. When well grown it is handsomely colored and unexcelled in flavor and quality. It is a choice dessert fruit and one of the best apples known for general culinary uses. It is well adapted for handling in cold storage, ships well, and has a long, well-established reputation in the market. As it originated in New York State, it succeeds best there. Being only an average, or rather moderate cropper, it is not generally planted in the commercial orchard. The fruit is below medium to large; pretty uniform in size and shape. The skin is tough, sometimes waxy, slightly roughened by the russet dots, deep, rich yellow, often almost completely covered with bright red inconspicuously striped with darker red. The flesh is tinged with yellow, firm, moderately fine, crisp, rather tender, juicy, aromatic, sprightly sub-acid, quality very good to best. Season, November to February or later. In cold storage may be held till June. Use, for the home orchard.

Fallawater—Fruit large to very large, globular, attractive in size and form. The flesh is coarse and at best but second rate in quality. It is well known in the market and is often handled at satisfactory prices in domestic and also in export trade. The tree is usually a good, regular bearer, producing biennially or in some localities almost annually. Not regarded as a standard commercial variety generally, but in some parts of the country it meets with favor. The skin is tough, smooth a little

WINTER APPLES

(Continued)

waxy, often dull grass green with dull blush, but highly colored specimens eventually become distinctly yellow and largely blushed with bright deep pinkish red. The flesh is tinged with yellow or green, firm, coarse, crisp, moderately tender, juicy, sub-acid to mildly sweet, without distinct high flavor, quality good or nearly so. Season, November to March or April. Use, desirable only for cooking and market.

Fameuse (Snow)—Fameuse, or commonly known as Snow, is one of the most desirable dessert apples of its season. It is very beautiful in appearance and the flesh is white, tender, and excellent in flavor and quality for dessert. Definitely inferior to other varieties of its season for culinary purposes. The fruit, when well colored and free from apple scab, sells above average market prices. The fruit is very susceptible to apple scab fungus, but this may be readily controlled by proper preventive treatment. The tree is of medium size, a moderate grower, hardy, healthy, rather long-lived and a reliable cropper, yielding good to heavy crops biennially or sometimes nearly annually. The fruit hangs well to the tree. Fruit of marketable grades is fairly uniform in size, but there is a considerable amount of it that is too small for market. The small apples can be made into the finest flavored sweet cider. The fruit hardly averages medium but sometimes is above medium in size. The skin is thin, tender, smooth, light bright red deepening to almost purplish black in highly colored specimens with a somewhat striped appearance toward the apex. The flesh is white, sometimes streaked or stained with red, very tender, juicy, sub-acid becoming very mild sub-acid or sweetish, aromatic, very good for dessert. Season, October to mid-winter.

Gano—This is a variety of the Ben Davis type but in quality a little superior to Ben Davis. It is less striped than the Ben Davis. Very attractive in appearance, stands handling well, and is a good keeper. The tree comes into bearing young and is an excellent cropper, bearing regularly and abundantly. Gano is grown extensively, commercially in about the same region as Ben Davis. The fruit is medium to sometimes large, uniform in size and shape. The skin is smooth, waxy, clear light yellow, mottled and blushed with bright light, pinkish red, often deepening to purplish red more or less obscurely striped. The flesh is whitish, slightly tinged with



STEELE'S RED

yellow, firm, moderately tender, rather coarse, moderately crisp, juicy, mild sub-acid, good or nearly good in quality. Season, November to May.

Gideon—Fruit above medium to large. Color, an attractive deep yellow or greenish, mottled and blushed with orange red; irregularly splashed with carmine. Flesh yellow, moderately firm, crisp, somewhat coarse, juicy, aromatic, mild sub-acid, eventually becoming sweet. Good to very good. Tree vigorous and hardy. Almost an annual bearer. Season, November to April. Fruit should be picked before it ripens. It is then an excellent cooking apple.

Golden Russet—Fruit below medium to above in size. Color, green or yellowish russet, becoming golden russet with bronze cheek. Flesh yellow, rather fine grain, moderately crisp, tender, juicy, rich, agreeable sub-acid, aromatic. Very good. Particularly desirable for home use during the spring months, being then excellent for dessert and culinary uses. The tree is hardy and a biennial bearer. Season, December to April or later.

Greening—See Rhode Island Greening and Northwestern Greening.

Grimes Golden—Fruit medium to large. Color clear deep yellow with scattering pale yellow or russet dots. Flesh yellow, very firm, tender, crisp, moderately coarse, moderately juicy, sub-acid rich aromatic and sprightly. Very good to best. Excellent for either dessert or culinary uses. It is a biennial bearer and good cropper, subject to collar-rot and should be double-grafted for best results. Season, November to February. One of the best pure yellow winter apples. Fine for the commercial as well as the home orchard.

WINTER APPLES

(Continued)

Hubbardston—Fruit above medium to large, sometimes very large. Color, yellow or greenish, blushed and mottled with red which varies from dull brown to bright red and is more or less marked with deep carmine. Flesh white, slightly tinged with yellow. Moderately firm, rather fine grain, tender, moderately crisp, juicy, aromatic, rich, and very sprightly but becoming moderately sub-acid, mingled with sweet. Very good to best. Excellent variety for commercial planting. Season, October to January.

Jonathan—Fruit medium to small, rarely large. Color pale yellow, overlaid with red, striped with carmine. When well colored always completely covered with red, which deepens to purplish on the sunny side. Flesh white or sometimes with tinge of red, firm, crisp, tender, juicy, very aromatic, sprightly sub-acid. Very good to best. In all, a very beautiful apple, high-flavored, of excellent quality either for dessert or culinary uses. One of the most desirable varieties for the fancy trade at the Holiday season. Reliable biennial cropper, coming into bearing rather young. Season, November to January.

King—See Tompkins' King.

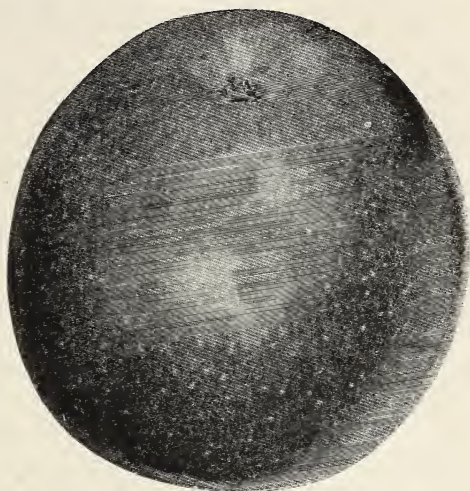
Mammoth Black Twig—(See Arkansas).

Mann—Fruit medium to large. Color deep green, often overspread with a brownish red blush mingled with a shade of olive green, but late in the season it develops a pronounced yellow color. Moderately coarse, moderately juicy. At first very hard and firm; later becoming moderately tender somewhat crisp, sub-acid. Fair to good. Trees moderately vigorous to vigorous. Very productive and fruit noted for its smoothness, uniformity and its superior keeping and shipping qualities. A reliable biennial crop. Season, January to May.

McIntosh—Fruit above medium to large. Highly perfumed. Color, polished yellow also covered with brilliant crimson. Flesh somewhat white, crisp, very tender, sprightly aromatic sub-acid. Quality very good to best. Tree vigorous. A good annual bearer. Resembles the Fameuse but larger, more hardy and fully equal in quality. Season, November to February. One of the very best varieties for commercial purposes.

Newton Pippin—See Yellow Newton.

Northern Spy—Fruit large and attractive. Color of bright red overspread with delicate bloom. Flesh very juicy, crisp and tender and most excellent for either



WEALTHY

dessert or culinary uses. Well adapted for local, general or fancy trade. Of well established reputation and because of its size, beauty, fine flavor and high quality, sells for more than average prices. Ready for use in November and retains crispness and high flavor until the close of the season. Rather slow in coming into bearing. Reliable cropper. Tree very vigorous. Season, November to March.

Northwestern (N. W. Greening)—Fruit medium to large or very large. Color, clear pale yellow or greenish, sometimes faintly blushed. Flesh tinged with yellow, medium in texture, crisp and firm, juicy, slightly aromatic, mild sub-acid. Fair to good. Very hardy. Valuable for culinary uses or dessert. Rather slow about coming into bearing and is a reliable biennial cropper. Season, January to June.

Oakland (Oakland County Seek-No-Further.) "A mildly sweet apple of good medium size, attractive dark red color, pleasant flavor and good quality. In common storage it is in season from late November to mid-winter or later; in cold storage it may be held till April.

This for many years has been a popular variety in Oakland county Michigan, where it probably originated. In 1883 it was brought to the notice of the American Pomological Society by Charles W. Garfield and was entered upon the list of that Society's catalogue as a promising variety in Michigan."

Ontario—Fruit large, uniform. Shaped like the Wagner with color of the Northern Spy—its parents but to both in flavor and color. Quality good to very good. Season, November to March.

WINTER APPLES (Continued)

- Opalescent**—Fruit large, uniform. Color, brilliant red on yellow background. Hardy vigorous, productive. Quality good to very good. Season, November to March.
- Ox Noble**—Fruit very large. Color richly striped and mottled with dark red. In quality equal to the Baldwin, but fruit much larger. Tree hardy and a splendid, vigorous, erect grower. Originated in Washtenaw County, Michigan, and introduced by us in 1880. Very valuable market variety. Season, November to March.
- Pewaukee**—Fruit above medium, often large, fully uniform in size. Color, green becoming yellow, washed and mottled with orange or red, striped or splashed with carmine, often covered with bloom. Flesh nearly white, moderately firm, slightly coarse, rather tender, very juicy, sub-acid, slightly aromatic. Fair to good. Tree strong grower, healthy, hardy, coming into bearing rather early and a reliable biennial cropper. Season variable, commonly January to May.
- Rambo**—Fruit medium size. Color, pale greenish-yellow mottled with red, striped with carmine and overspread with grayish blue. In high colored specimens the red is predominant. Flesh white with tinge of yellow or green, firm, rather fine grained, very crisp, tender, juicy, mild sub-acid, aromatic. Good to very good. Particularly desirable for dessert or for home use. Season, October to January.
- Rhode Island Greening**—Fruit above medium to large, uniform. Color smooth, waxy, grass green, varying to yellow. Flesh yellowish, firm, moderately fine grained, crisp, tender, juicy, rich, sprightly sub-acid, peculiarly flavored. Very good in quality. Tree rather slow coming into bearing. Yield moderate to heavy, biennially. Season, December to March.
- Rome Beauty**—Fruit large, roundish, mostly covered with bright red on pale yellow ground. Flesh tender, not fine grained, juicy. Of good quality. Ripens early in winter. The large size and beautiful appearance of this Ohio apple renders it popular as a market variety. Season, November to February.
- Roxbury Russet**—A vigorous and spreading grower. Fruit medium to large. Partly or wholly covered with a rather rough russet or greenish-yellow ground, sometimes a dull brown cheek. Flesh greenish-white, rather granular, slightly crisp with good sub-acid flavor. Keeps late in spring. Succeeds well throughout the Northern States. Reliable biennial cropper. Quality good to very good. Season, December to May, or in cold storage to July.
- Salome**—Fruit below medium to above, uniform in size and shape. Color, pale yellow or greenish, more or less mottled and blushed with pinkish red, rather obscurely striped with carmine. Flesh tinged with yellow, firm, moderately fine grained, crisp, rather tender, juicy, sprightly sub-acid, good to very good. The tree is hardy. Season, November to March.
- Seek-No-Further**—See Westfield.
- Shiawassee**—Fruit medium. Color deep brilliant red on greenish yellow ground. Flesh firm, very white, tender, crisp, juicy, refreshing, sub-acid, aromatic. Tree vigorous. Very productive. Resembles Fameuse but a stronger and upright grower. Fruit large. Season, October to January.
- Snow**—See Fameuse.
- Spitzenburg**—See Esopus.
- Stark**—Fruit medium to large, sometimes very large, uniform. Fruit smooth or slightly rough with russet dots of pale green, becoming yellow, more or less blushed and mottled with red and rather indistinctly striped with dark red. Prevailing effect dull green and red, but in highly colored specimens, red. Flesh yellowish, firm, moderately fine to coarse, rather tender, juicy, sprightly, mild sub-acid not high in flavor. Fair to good, or nearly good in quality. Tree a vigorous grower, upright, spreading roundish, regarded as a good variety for the commercial orchard. A reliable cropper and very productive. Succeeds in the region where Baldwin does well and also North, South and West beyond the range of profitable cultivation of the Baldwin. Season, January to May.
- Stayman Winesap**—The best of the Winesap family. Fruit medium to large, uniform. Color, green, becoming yellowish, often nearly completely covered with dull mixed red and indistinctly striped with dull carmine. Flesh tinged with yellow or slightly greenish, firm, moderately fine grained, tender, moderately crisp, juicy to very juicy, aromatic, sprightly, pleasant sub-acid. Good to very good. Tree moderately vigorous, spreading, coming into bearing early and a reliable annual cropper. A valuable variety for both home use and commercial orchards. Season, December to May.
- Steele's Red** (Sometimes Called Canada Red or Red Canada)—As a long keeping market apple with good color, this variety is unsurpassed, invariably brings \$1.00 or \$2.00 more per bushel than

WINTER APPLES (Continued)

other apples. The only drawback has been its slow growth, but by the Greening method of top-grafting it in the nursery on a hardy, fast-growing Gideon stem and French Crab root, we have completely overcome its slow growing characteristics. By top-grafting it will come into bearing as quickly as any good standard variety of apple. Fruit medium to nearly large, uniform. Color, rather clear light yellow or green, overspreading in well-colored specimens with a fine deep red, blushed indistinctly, striped with deeper red. The dots conspicuously of gray or fawn color. Flesh, whitish with yellow or greenish tinge, firm, crisp, rather fine grained, tender, juicy, aromatic rich, agreeably sub-acid, becoming rather mild toward the close of the season. Quality good to best. Valuable for either commercial or home use. A biennial bearer. Season, November to March or later.

Sutton Beauty—Fruit medium to large, uniform. Glossy, smooth, attractive, bright red, striped with carmine or purplish carmine, nearly overspreading the lively yellow or greenish ground color. Prevailing effect attractive red, blushed slightly, tinged with yellow. Rather firm, moderately fine grained, crisp, tender, juicy, mild sub-acid. Good to very good. Tree very valuable and healthy. Its beautiful color and pleasant quality unites to make the Sutton an excellent dessert apple. It is less desirable for culinary uses, adapted for the fancy market and fruit stand trade, also home use. Season, November to April.

Tolman Sweet—Fruit small to medium, uniform. Color, pale clear yellow or whitish yellow, sometimes a little blushed, dots small inconspicuously pale yellow or faint russet. Flesh white, firm, neither tender or crisp, rather hard, moderately fine, rather dry to moderately juicy, decided sub-acid. Good to very good. Tree is a good grower, long-lived and very healthy. Comes into bearing moderately early. A reliable cropper, biennially or almost annual. Fruit much esteemed for culinary purposes, such as pickling, boiling, and baking. Season, November to April.

Tompkins' King—Fruit large to very large, uniform in size and shape. Color, fine yellow mottled and washed with orange red, often shaded to lively red, striped and splashed with bright carmine, dots rather numerous, conspicuously white or russet. Prevailing color attractive red over yellow. Flesh, yellowish, coarse, crisp, tender, aromatic, juicy, sub-acid. Quality very good to best. Tree rather slow about coming into bearing, but when mature becomes



ROME BEAUTY

a regular bearer, yielding light to heavy crops biennially. Valuable for home and commercial use. Season, November to March.

Wagener—Fruit medium to rather large. Color, glossy bright pinkish red, striped with bright carmine and mottled and streaked with thin whitish scarf-skin, over a pale clear yellow, becoming red. Dots numerous, whitish or russet. Prevailing color, bright light red. Flesh whitish, slightly tinged with yellow, moderately firm, rather fine grained crisp, tender, juicy to very juicy, sub-acid, aromatic, sprightly. Very good to best. Season October or November to February. Tree dwarfish to medium sized grower. Valuable for fillers in commercial orchards. The fruit is desirable for both culinary and dessert purposes. Comes into bearing earlier than and other good commercial variety.

Wealthy—Fruit large sized, roundish. Skin smooth, splashed with dark red. Flesh, white, tender, juicy and sub-acid. Season, November to January. A native of Minnesota, where it has proven perfectly hardy, vigorous and productive. Comes into bearing early. Very popular on account of its handsome appearance and valuable as a market apple.

Westfield (Seek-No-Further) — Fruit medium, sometimes below. Color, rather deep yellow or greenish, shaded and splashed with dull red, but in highly colored specimens largely overspread with bright pinkish red, striped with deep carmine. Dots large and conspicuous, pale yellow, grayish or russet. Flesh, slightly tinged with pale yellow, firm, moderately grained, crisp, tender, breaky, juicy, mild sub-acid, rich, peculiarly aromatic, sprightly. Very good to best. Tree vigorous and hardy. Little value for cooking but an old favorite dessert apple. Season, November to March.



TWO-YEAR-OLD APPLE TREES IN OUR NURSERY

The photograph was taken in the latter part of August before they had full growth. Note smooth bodies and vigorous growth. This result is obtained by thorough cultivation, proper pruning to a well-balanced head and constant spraying which keeps the trees healthy and growing.

WINTER APPLES (Continued)

Winter Banana—Fruit large to very large. Skin smooth, moderately thick, waxy, bright pale yellow often with a blush, which in well-colored specimens deepens to a dark pinkish red. Dots numerous, whitish and submerged, or with fine russet effect. Prevailing effect yellow with a pretty contrasting blush. Flesh whitish, tinged with pale yellow moderately firm, a little coarse, somewhat crisp, tender, juicy, mild, sub-acid, distinctly aromatic. Good to very good. Tree a vigorous grower and a remarkable early bearer, yielding moderately to very heavy crops. In season from mid-November to May.

Wolf River—Fruit very large. Smooth yellowish white splash with bright red. Dots large, scattering, light gray. Flesh yellowish-white, coarse, tender, dry with ripe sub-acid, not rich. Medium quality only. Valuable in the Northwest. Tree vigorous and fairly productive. Season, November to January.

Winesap—Fruit medium, uniform in size and shape. Skin smooth, glossy, bright deep-red, indistinctly striped and blotched with very dark purple, over a very distinct yellow ground color of

green, if not mature is over-spread with faint bloom. Dots rather small, scattering whitish. Prevailing effect bright deep red. Flesh tinged with yellow, very firm, rather coarse, moderately crisp, very juicy, spright sub-acid. Good to very good. Season, December to May. This is one of the oldest and most popular apples in America. Tree vigorous, coming into bearing early, and it is a remarkable regular cropper. This is a well-known market apple, particularly valuable for the South and West.

Yellow Bellflower—Fruit variable, small to large or very large. Skin smooth, bright pale lemon yellow, varying to white in the shade and often a brownish red in the sun, which in highly colored specimens deepens to a pinkish red blush. Dots whitish or russet, numerous and small towards the base, larger and scattering towards the cavity. Prevailing effect bright pale yellow. Flesh whitish, tinged with pale yellow, firm, crisp, moderately fine grained, rather tender, juicy, aromatic. Very good for culinary uses, rather too acid for dessert early in the season but later its acidity becomes somewhat sub-

WINTER APPLES (Continued)

duced. Highly esteemed for home use. Tree a good grower, hardy, healthy and long-lived. Season, December to April.

Yellow Newton (Newton Pippin)—Fruit medium to large. Color yellow with distinctly pinkish blush, especially about the base. Flesh yellowish, firm, crisp, tender, moderately fine grained, juicy with a fine aromatic sub-acid flavor. Quality very best. Season, February to May. Tree bears young and yields good crops biennially.

York Imperial—Fruit uniform, above medium to large. Color green or yellow, blushed with moderately bright red or pinkish red and indistinctly striped with carmine. Dots pale yellow or russet, often conspicuous. Flesh yellowish, firm, crisp, a little coarse, moderately tender, moderately juicy at first, sprightly sub-acid but becoming mild sub-acid or nearly sweet, somewhat aromatic. Good to very good. Tree vigorous, a regular annual or biennial bearer. Season, January to May. Not hardy for extreme cold climates.

Crab Apple

Crab apples succeed equally well in all sections, and are valuable for preserving, jelly, cider, ornament, and some of the improved varieties are excellent for eating. A valuable market fruit.

Hyslop—Fruit medium. Color, yellow, rounded with heavy shade of deep crimson, splashes of maroon with heavy blue bloom. Flesh fine, firm, astringent. Bears abundantly in clusters. It is highly colored and commands average market prices. It is one of the most desirable for culinary purposes and for market. Tree hardy and vigorous. Season, September to October.

Transcendent—Fruit medium to large. Color, brownish yellow with blushes of

carmine. Flesh firm and crisp, yellowish, fine grained, very juicy, acid. Tree is a hardy and vigorous grower. Comes into bearing early. Immensely productive. Season, September to October.

Whitney—Fruit large. Color, yellow, striped with red, mostly covered with red on the sunny side. Flesh yellow, firm, very juicy and rich. Fruit in size and quality is equal to many apples. Tree a vigorous and handsome grower. Season, August.

Ulmus Americana which you know as the Elm is one of the most beautiful of our native trees. It is long lived, majestic and will thrive almost anywhere.

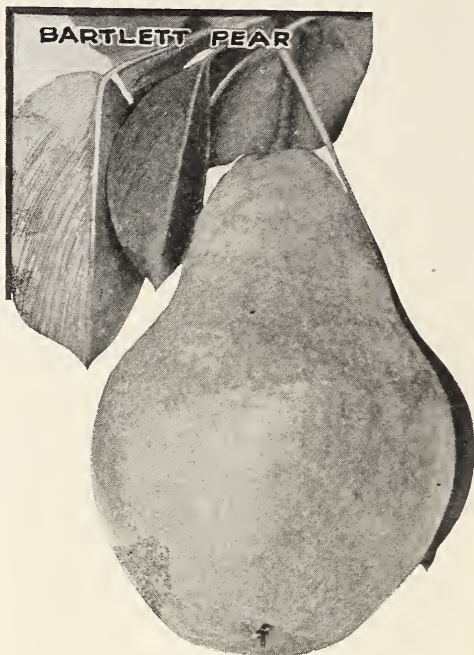
Pears

THE Pear is equal if not superior to most other fruits. Its varieties cover a longer season than any other, except the apple. It succeeds wherever the apple does, but does best in heavy clay and clay loams.

Unlike other fruits, pears must be picked before they ripen enough to eat. Wait until they have attained full size and begin to show the colors of maturity. As soon as picked they should be wrapped in paper and packed in a box.

Some varieties succeed better as dwarf than standard. (See under Dwarf Pears.)

Standard varieties should be planted from 18 to 25 feet apart, dwarf varieties from 10 to 15 feet apart.



SUMMER PEARS

Bartlett—Large size; yellow, often with a beautiful blush next the sun; buttery, very juicy and highly flavored. Tree a strong grower, bearing early and abundantly; very popular; the most profitable for market. Last of August and first of September.

Clapp's Favorite—A large, fine pear resembling the Bartlett, but without its musky flavor; pale lemon yellow, with red cheek; fine texture, melting, buttery, juicy, with a rich, sweet, delicate, vinous flavor. Tree hardy and very productive; very desirable in all sections, and especially so where other varieties fail. August.

French—The tallest growing pear tree known, reaching the height of 100 to

150 feet. A great bearer and hardy. Fruit yellow, medium, perfect in shape, very rich in flavor, highly perfumed; most valuable pear for canning yet introduced; retains its rich flavor after cooking; not a good commercial pear. Middle to last of August.

Koonce—Originated in Southern Illinois. A strong, upright grower, hardy; has produced crops when all other varieties were killed by frost. Fruit medium; yellow with carmine cheek; ripens with the earliest. July and August.

Wilder—Very early, resembling Summer Doyenne; claimed to be a good shipper for an early pear. Small. First of August.

AUTUMN PEARS

Angouleme (Duchess d'Angouleme)—Very large; greenish yellow, sometimes a little russeted, makes a beautiful tree; very productive. One of the best. October and November. Succeeds best as a dwarf.

Anjou—A large, fine pear; buttery and melting, with sprightly, vinous flavor. Tree a fine grower and good bearer. One of the very best. October to December.

AUTUMN PEARS (Continued)

Flemish Beauty—Large, beautiful; juicy, melting, rich and fine; strong grower and good bearer; hardy everywhere. A very popular market variety. Fruit subject to skin scab; spraying with lime and sulphur mixture, 1 gallon to 30 of water, will prevent it. September to October.

Howell—Large; light, waxy yellow, with a fine red cheek, handsome; rich, sweet, melting, perfumed aromatic flavor. Tree a free grower, an early and profuse bearer. Very hardy and valuable. September to October.

Kieffer—Well known everywhere. Said to have been raised from seed of the Chinese Sand Pear, accidentally crossed with the Bartlett or some other kind. Large; skin rich golden yellow, sprinkled thickly with small dots and often tinted with red on one side; flesh slightly coarse, juicy, with a pronounced quince flavor. Tree very vigorous and an early and great yielder. Next to the Bartlett it has been planted most extensively for market. November and December.

Lincoln, Illinois—Large and of good quality. Ripens in late fall. The value of the Lincoln Pear lies in its comparative exemption from blight and disease, in its hardiness and great productiveness. The fruit is medium to large, with a rich aromatic flavor; core small and

healthy, and the fruit has a beautiful waxy appearance when fully ripe. Trees grow to an enormous size. October to November.

Louise (L. B. de Jersey)—Rather large; greenish yellow, with a bright red cheek; juicy, buttery and melting, excellent; very productive. A fine grower on both standard and dwarf. October to November.

Seckel—Small; rich yellowish brown, one of the best and highest flavored pears known; productive. September to October.

Sheldon—Fruit large, roundish; yellowish, nearly covered with light russet; slightly shaded with red; flesh very juicy, melting and delicious; tree hardy, vigorous and good bearer. One of the best varieties. Has never been known to blight. October.

Vermont Beauty—A beautiful new seedling pear; medium size, roundish, obovate, yellow, nearly covered with carmine; flesh melting, sprightly, fine quality; tree healthy, hardy and productive. October.

Worden—Larger than Seckel. Flesh dull white; very juicy, buttery, melting and excellent. Seedling of the Seckel, which it surpasses in size, beauty and keeping quality. Ripens in October. Good keeper.

The Peony, Phlox and Iris requires less care and give greater returns than any other flowers.



THE WONDERFUL BOSCH PEAR,

The Bosch pear was considered, years ago, as an impossible variety to grow successfully on account of its feeble and straggly growth. But under the Greening method of double-grafting the Bosch on the stem of the Keiffer and French Pear root, we change the tree to a strong and vigorous grower.

It is an early bearer of beautiful golden color; very productive, large size ($3\frac{1}{2}$ to 5 inches); a good late fall keeper and is of the most luscious, honey-like flavor. Its profits as a market pear are astonishing, bringing \$4.00 to \$5.00 per bushel on the average commercial market.



THE BOSCH PEAR
(Very much reduced)

WINTER PEARS

Bosc—Originated in Belgium. Shape, oblate-pyriform and of very large size. Color, a beautiful yellow, touched with crimson and slightly russeted. In quality it is undisputed as the most delicious dessert pear known. A medium late variety. The tree, however, is a poor grower, but under our method of double grafting we restored it to a strong, thrifty and productive tree. This pear always sells at the highest prices, frequently bringing as high as \$4.00 to \$5.00 per bushel in the commercial markets.

Clairgeau (C. De Nantes)—This wonderful late pear was originated by Pierre Clairgeau, of Nantes, France. It is one of the most showy and well-formed pears grown. Fruit large, with a very stout stem. Color when matured is a golden yellow with a highly colored red cheek. It is one of the most highly flavored pears and the heaviest bearer

in cultivation, bearing annual crops when other varieties fail. Fruit is very firm and will not bruise in falling. Tree exceedingly hardy and vigorous in growth, forming a beautiful pyramid. Heavy bearer, even on two and three-year-old trees. Trees usually require propping up the third year to keep them from breaking down. October to January.

Lawrence—About medium; yellow, thickly dotted; very rich, fine flavor. One of the best. Tree a good grower and very productive. December to January.

Lincoln Coreless—Fruit very large, handsome appearance; quality only medium, and very few if any seeds. Almost clear of core and seeds, whence its name. A good keeper. Golden yellow. Tree a good grower and very productive; has never been known to blight. December to March.

DWARF PEARS

Dwarf Pears should be planted below the bud, sufficiently deep (three or four inches) to cover the junction of the pear and quince. Dwarf frequently succeed where Standards fail especially where the soil is deficient in clay loam. It is very important to select the proper varieties, however, as all varieties of pears do not succeed well as dwarfs. Those most desirable are: Angouleme, Bartlett, Clapp's Favorite, Keiffer, Koonce, Louise and Seckel. Among these we find the Angouleme and Clairgeau the most profitable. Plant from 10 to 15 feet apart.

Quinces



ORANGE QUINCE

THE Quince is of late attracting a great deal of attention as a market fruit. It is hardy and compact in growth and requires but little space. It is productive if handled properly and gives regular crops, coming into bearing in about two or three years and continues productive, if well managed, for forty years or more. The fruit is much sought after for canning, preserving and for jellies. It gives a delicious flavor to the apple, cooking in any manner. They should be planted ten or twelve feet apart on deep rich soil.

Champion—A prolific and constant bearer, fruit averaging larger than the Orange, more oval in shape, quality equally fine; bears extremely young, producing fine fruit on two-year trees in nursery row; can be kept in good condition until January. Tree a vigorous grower and prolific bearer; one

of the best for sections not subject to early frosts.

Orange—Large, roundish; bright golden yellow; cooks tender, and is of very excellent flavor. Valuable for preserves or flavoring; very productive; the most popular and extensively cultivated of the old varieties. October. (See illustration.)

The Peony, Phlox and Iris are the most satisfactory perennials.

Peaches As We Grow Them



Reproduced from photograph taken by Mr. Dutton of Michigan Agricultural College of two-year South Haven Peach tree on farm of P. H. Broe—68 peaches on tree when photograph was taken. (Pedigree Record Sheet No. 23.)

You may not know it—but it is the truth—that here at Monroe we have a soil and climate especially adapted to the production of the peach tree.

The late J. C. W. Greening builded better than he knew when he selected a site for his nursery at the head of Lake Erie, favored alike by nature of soil and climate.

The soil and the climate are two reasons for the excellence of our stock, but the basic one is because we use only natural peach pits found in eastern Tennessee and western North Carolina.

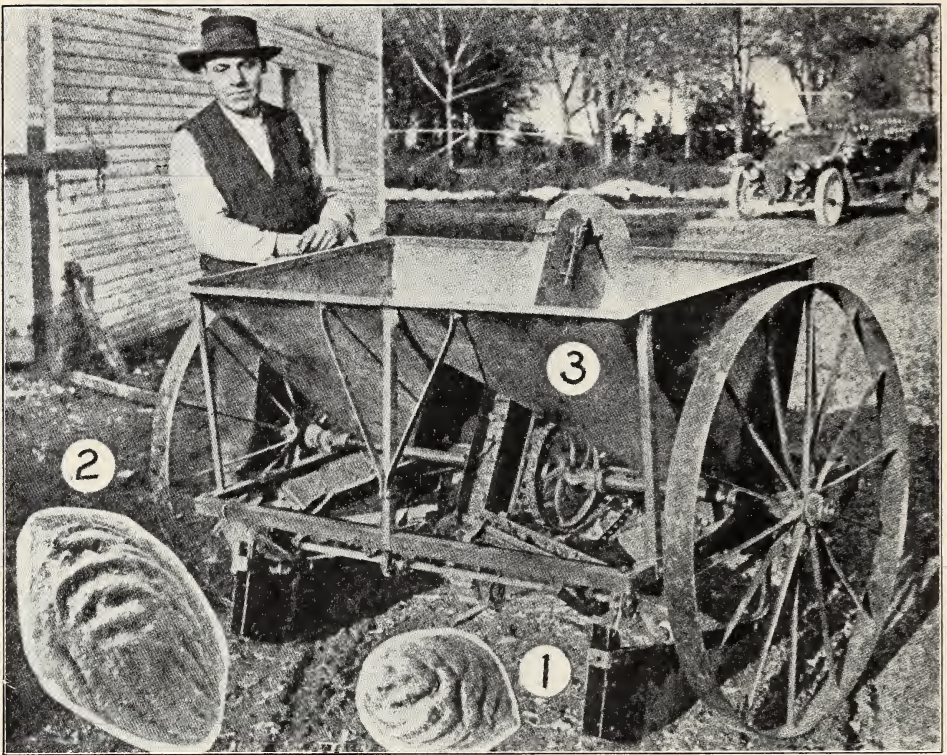
We have reproduced a photograph on the next page showing not only our peach seed planter and the man who invented it, but also a Tennessee natural peach pit, which is No. 1. It is small—it doesn't look as good as No. 2, No. 2 being a seed from a canning factory pit.

W. W. Tracy, formerly with the Department of Agriculture at Washington, once described a seed as "a plant packed for transportation," which is the truth well told. Look again at No. 1 in the cut on page 68. There is a peach tree in that pit.

If you will crack open a pit from the domestic, or northern grown peach pit of one of the tame varieties you will find not much in it except gum, ooze and slime. This fruit is alright to eat, but the pits have no prepotency—they are not fit to grow trees from.

And so, no pits are used in our nursery except natural peach pits, because after testing the matter out and noting the results for a number of years, we positively know that natural peach seed is the only seed which will produce perfect, healthy, well-rooted trees that will grow to maturity with no taint or touch of disease!

For this reason they will bear better fruit and more of it. They live longer and make more money for fruit growers. There is never any "little peach" or "peach yellows," both of which are bacteria, which can be transmitted by the pit.



In the cut above we illustrate our peach pit planter. The man who invented it, Mr. Romine, is shown. The capacity of this machine is 75 bushels a day. The small peach pit No. 1 is a Tennessee native peach pit. There are about 3,000 such pits in a bushel. The large pit No. 2 is from a domestic pit. We use nothing but No. 1 in our propagation, because it means a strong healthy tree, free from disease.

On these healthy seedlings we bud our pedigreed stock of the desired varieties, and we wish to say that our strains of peaches are constantly renewed. We have introduced more new peaches of worth while varieties than any other nursery in the United States.

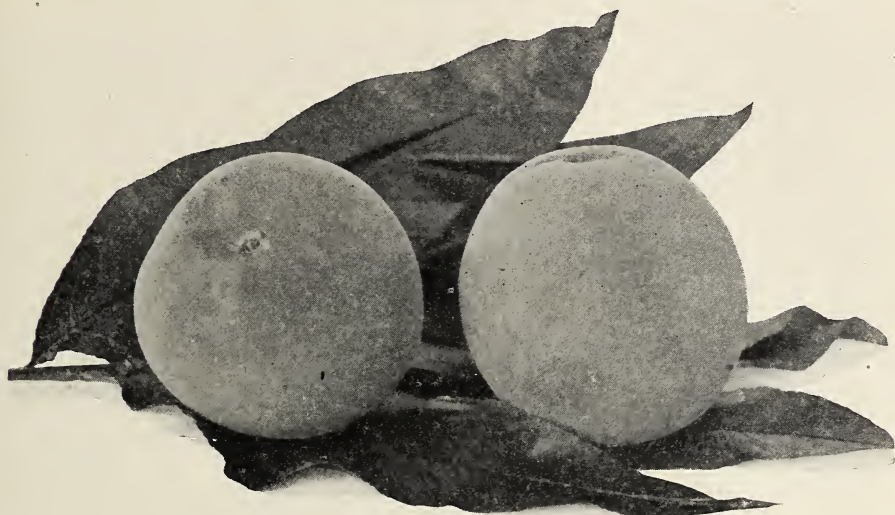
The cost of producing pedigreed stock is greatly increased, especially of the peach, for the reason that the buds taken from bearing trees do not unite with seedling stock as readily as with the budding wood taken from the young trees in the nursery, therefore, there is a greater loss in budding.

Our stock is worth more—it costs more to produce—and growers should take into account that peach buds are perishable, more so than any other fruit we propagate. Bringing them from the orchard to the nursery results in many of them being unfit for propagating. This loss is excessive, no matter how skillfully or speedily the buds are handled.

And yet with all the added expense and greater loss in following the system we use in our propagation of the Peach, we do not ask any more for the stock than peaches propagated the ordinary way.

Commercial orchardists well know that we have never introduced any peach except that it was of outstanding merit. We wish to call your attention to six peaches that have made a name for themselves in the commercial markets of this country. Namely, the Banner, New Prolific, Kihlken Smock, September Mammoth, and the wonderful South Haven (Trade Mark). Each of these was introduced by us and all of them have proved to be desirable in the great peach growing districts.

Peach growers who are desirous of buying the best stock are invited to visit our office; to go over our records; see the stock growing in the nursery, and thus protect themselves in their efforts to get a profitable orchard.



THE SOUTH HAVEN (TRADE MARK) PEACH
Very much reduced

OUR NEW INTRODUCTION THE WONDERFUL SOUTH HAVEN PEACH

Our attention was called to this Peach in 1914. Its origin and how it came to be put on the market follows:

In the spring of 1908 Mr. A. G. Spencer, living near South Haven, Michigan, set two rows of the St. John Peach in an orchard bought from us. In 1911 when the trees were three years old he noticed one tree which had a full crop of peaches, while the other trees in the two rows had few, if any, peaches on them. Each year the same condition obtained until the summer of 1914 when Mr. Spencer called the attention of our Mr. Roy E. Gibson to the tree. Perhaps it is well to state that Mr. Gibson is our expert bud and scion collector, having in charge our "Performance Record of Pedigreed Trees and full charge of our Research Department. Mr. Gibson examined the tree carefully and noticed a very apparent difference as to growth, as this particular tree was more spreading in habit, leaves were larger and a much more vigorous tree in every way than others in the two rows.

Mr. Gibson visited the tree each year until 1916 when he decided to propagate from it, and on the 14th of August, 1916, cut 750 buds, which were sent to us marked "a new variety."

The following year, that of 1917, this tree had its largest crop. Many growers and others interested in horticultural affairs, visited the tree and later fruit from it was shown in the stores and business places of South Haven, and having decided that this new variety was worthy of a name and would soon become one of the leading commercial peaches we decided to name it the "South Haven" Peach.

In the spring of 1918 there were 52 of these South Haven Peach Trees and 50 of them were planted by Mr. Spencer directly north of the original tree. The trees were all sizes from very small to No. 1. In 1920 a row of these, containing 28 trees, all produced fruit but one.

Very Hardy and Prolific

Experience has shown us that this tree is very hardy. The original tree stood a severe test in the winter of 1917-18, in that it was so heavily loaded in 1917, having $6\frac{1}{2}$ bushels, and yet it stood the winter of 1917-18, while large numbers of peach, pear, plum, and even apples that had produced large crops were killed in the vicinity of South Haven that winter. In fact many varieties of peaches which we had under observation were so badly injured that we had to discontinue their records and start over again.

The fruit from the original South Haven tree was never weighed, but measured as picked in baskets. The first year's production was given us by Mr. Spencer. Since 1915 Mr. Gibson has measured the fruit each year. (See table showing production.)

The Peach All Commercial Growers Have Been Looking For

We placed this peach on the market because we had been looking for years for a peach that would ripen at this particular season. Peaches have always brought the highest price at this time, and a variety that will come in and bear fruit annually or nearly so, in good quantity

will lengthen the season, and thus produce a profit for the grower.

WONDERFUL RECORD OF THE SOUTH HAVEN PEACH

The original tree of the South Haven Peach began to bear at three years from planting. Its record follows:

1911	-----	1/2 Bushel	1917	-----	6 1/2 Bushels
1912	-----	1 Bushel	1918	-----	1 1/2 Bushels
1913	-----	4 Bushels	1919	-----	2 3/4 Bushels
1914	-----	3 Bushels	1920	-----	4 Bushels
1915	-----	4 Bushels	1921	-----	3 3/4 Bushels
1916	-----	5 Bushels			

Mark you this: *the year following the coldest winter known in Michigan for fifty years, that of 1917-18, this tree bore 1 1/2 bushels of fruit, following the 6 1/2 bushel crop of 1917, when nearly all other varieties of peaches in this section were either killed or did not bear!*

This very remarkable record indicates heavy bearing qualities, but there is another vital essential in a peach if it be of genuine champion stuff, with "punch" enough to put it over the top, and this is extreme hardness. This tree, after producing its largest crop of 6 1/2 bushels in 1917, not only stood the severe cold, but bore 1 1/2 bushels of fruit the summer following: *while even some of the hardy apples, such as Baldwin and Wagener that had produced heavy crops in the same locality were killed!*

We do not mention this peach with others except in a comparative way, then with varieties with which you are familiar. It is not comparable with others, because it is in a class by itself in every leading characteristic demanded by the market grower. We realize that this is a strong statement, but this variety has now stood the acid test. In fact we did not put it on the market until we had seen what it would actually do. Ten years have now elapsed since the original tree began fruiting.

A peach of commercial worth, ripening in August, has long been needed. There are plenty which ripen in September, but none that possess the essentials of an absolutely AAA peach for market purposes until the South Haven was discovered by Mr. A. G. Spencer in 1908. The Yellow St. John at that time was one of the leading varieties at this season, but the Yellow St. John is a shy bearer and not a profitable peach for commercial growers.

The Best Peach for Canning Purposes

The South Haven Peach has a very small pit. Before beginning to propagate it commercially we took it to the leading canners of Michigan and in their opinion it outranks any peach now in cultivation as a canner. Commercial orchardists and growers of peaches for canning factories will please bear this fact in mind when making their selection of varieties.

We are now offering the South Haven Peach to the general public. We think it will succeed over a wider range of latitude than any peach now on the market. That being true, here is a really first class peach which will thrive in many sections of the middle-west, which have been considered absolutely worthless for peaches until now.

Buy trees whose antecedents have merit—don't plant mongrels of unknown ancestry.



A close up view of our South Haven Peach Block. This is an exceedingly hardy commercial variety. Note the thrifty growth and healthy appearance.

As this variety is about the same size of the Elberta, has a good color, a thick skin and is a good shipper, much harder than any other variety known, and two weeks earlier than the Elberta, we say with confidence **IT IS THE GREATEST COMMERCIAL PEACH YET PRODUCED.** We hope to be able to supply the demand for this variety from now on. Each year since we have propagated it we have been sold out long before the selling season fairly began. Because it ripens at a time to bring the highest prices, Commercial Growers who are always progressive and quick to grasp the new varieties worth-while, have been planting it, or will plant it as soon as they know what a wonderful peach it is.

AT THE PRESENT TIME THE GENUINE SOUTH HAVEN PEACH CAN ONLY BE HAD FROM US

Do not take any other peach as a substitute, because as a money maker—none can equal it, and the plain unvarnished truth about this wonderful variety as we have given it will prove it.

Over a Million Greening Grown Trees in Eighteen Years

*The Greening Nursery Co.,
Monroe, Mich.*

South Haven, Mich., June 1, 1922

Gentlemen:—

I have just completed my eighteenth annual delivery for your Company. As usual, the stock delivered gave good satisfaction to growers who know good trees and want only the best. Out of the four cars this year every order was delivered and not a tree was rejected.

In this eighteen years I have sold over a million of your trees. Orchards of peach, pear, apple, cherry, plum, and quince are in bearing in large numbers and the results received from these orchards explain the large sales of Greening's trees here.

I am glad to make this report as I am sure you will be pleased to know that the trees delivered so nicely.

Yours very truly,

ROY E. GIBSON

Mr. Gibson is in the heart of the Michigan fruit belt and is considered one of the best informed men in Michigan on practical fruit growing.



OUR NEW SOUTH HAVEN (Trade-Mark) PEACH

Here is another photograph of our New South Haven Peach taken the second year from planting. This tree was planted in 1918. The photograph was taken by Mr. Dutton of the Michigan Agricultural College in 1920. Note the size of the peach and the number on a two year old tree. Surely you will agree with us that this is remarkable. You do not have to take our word for it. We have given you Mr. Spencer's name and address. You can write him, or any official of the Michigan Agricultural College at Lansing, Michigan. So far we have never been able to propagate enough to meet the demand. The outstanding characteristics of this peach are its proclivity for bearing—its extreme hardiness—its color and its shipping quality, as well as the season in which it ripens, which is two weeks earlier than the Elberta, thus lengthening the season and bringing the very highest market prices each year, as all Commercial Growers will know.



OUR NEW SOUTH HAVEN PEACH

The above cut is a reproduction of a photograph taken of a two year old South Haven Peach tree in the orchard of Mr. A. G. Spencer of Kibbie, Michigan. These photographs were taken by Mr. Dutton of the Michigan Agricultural College in 1920. As Michigan is a great State for peaches the M. A. C. is much interested in any new variety introduced, therefore, they have been watching this peach from the time it was first noted by Mr. Spencer. If you doubt any of our statements relative to this variety please write the M. A. C. at Lansing, Michigan.



ROWS OF PEACH TREES ONE MILE LONG!

Here is shown a view of one of our Peach blocks. The rows are a mile long. The line of men in background are hoeing the young peach trees. There are nearly a million trees in this block. Men in the foreground are a few of the salesmen who attended our Annual Convention for Salesmen June 1922.

LIST OF PEACHES IN THEIR ORDER OF RIPENING

For the convenience of our patrons and salesmen we give herewith a list of peaches in their order of ripening. This will be of material assistance in selecting varieties for commercial orchards.

We have used the Elberta as the standard, because it is well-known and is grown more largely than any other in all commercial peach sections.

Mayflower	-----	Last week of June.
Alexander Triumph	} -----	About eight weeks before Elberta.
Carman Mountain Rose	} -----	About four weeks before Elberta.
Dewey	-----	Ten days before St. John.
St. John Rochester Champion	} -----	Three weeks before Elberta.
South Haven (Trade-Mark)	} -----	Eighteen days before Elberta or a few days after St. John.
Early Crawford Fitzgerald	} -----	Two weeks before Elberta. Between St. John and New Prolific.
Weed's Barnard	-----	Ten days before Elberta.
Engel's Mammoth New Prolific Niagara	} -----	One week before Elberta.
J. H. Hale	-----	About five days before Elberta.
ELBERTA	-----	<i>Ripens Sept. 1 to 20, depending of course on the season. Crop usually picked in one week.</i>
Belle of Georgia Salberta	} -----	Same as Elberta.
Kalamazoo	-----	With Elberta or a few days later.
Late Crawford	-----	With the last of Elbertas.
Gold Drop Gold Mine	} -----	One week after Elberta.
September Mammoth	-----	Ten days after Elberta.
Banner	} -----	Ten days after Elberta. First picking with last of Gold Drop.
Lemon Free	-----	With last of Banner.
Kihlken Smock Old Mixon Free Chair's Choice Matthew's Beauty	} -----	Two weeks after Elberta.
Salway Stump Heath Cling Old Mixon	} -----	Three weeks after Elberta. First picking right after last of Kihlken Smock.

PEACHES

NEXT to the Apple, the Peach has the widest variety of uses and if the apple can be justly called the "King of Fruits," the peach is "Queen." The peach has been told of in song and story since the beginning of time and enjoyed by all mankind the world over. Popular opinion has it that the peach is a short-lived, tender tree, but as a matter of fact it is now grown successfully in every State of the Union.

The variety to choose always depends on the section of the country in which they are to be grown and for what purpose. Some of the most delicious are fit only for home use and are not good as a commercial product.

It is quick to reach the bearing age, and with the right selection of varieties and the care given that it should have, the fruit may be enjoyed by all for three or four months every summer and fall.

Perhaps it might be well to state here, that we are the largest growers of peaches in the country, having an unusual combination in soil and climate on the western shore of Lake Erie. A visit to our nursery and the sight of the stock we have growing will convince anyone as to the truth of this statement.

DESCRIPTION OF VARIETIES

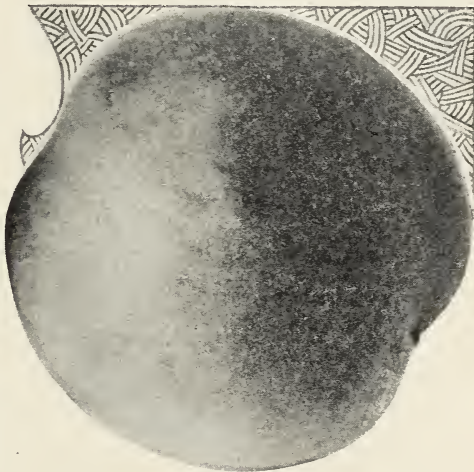
Alexander—Popular because of its hardness, vigor and early bearing habit. Fruit medium size; skin greenish white, blushed and spotted with dark red; flesh greenish white, juicy sweet, very mild, fair to good in quality. Ripens three weeks earlier than Early Crawford. July. Cling.

BANNER—Originated at Woodslee, Ontario, Canada. Fruit large, round and very handsome. Tree very hardy and an early and abundant bearer. No other late peach compares with it in quality. In both bearing and quality it equals New Prolific. Unsurpassed in richness of flavor. A strong, vigorous grower. Winner of ten first premiums at Canadian Agricultural Fairs. Color, deep yellow with a rich crimson bloom. Flesh golden yellow from pit to skin. Pit small and perfectly free. Its shipping qualities are unsurpassed. Season of ripening ten days after Elberta. This peach is very hardy and dependable, but should be fertilized, pruned and thinned. Big money-maker when other varieties do not bear. An excellent commercial variety.

Belle of Georgia—A large creamy white peach with beautiful crimson cheek. Quality good. Ripens mid-season. Freestone. A valuable peach for southern sections. This variety does not equal Champion as a white fleshed peach for distant markets.

Bronson—Large, yellow, with handsome red cheek. Flesh sweet, rich. Fine flavor. Tree hardy and a good bearer. Ripens with Kalamazoo.

Carmen—Large, resembles Elberta in shape. Color creamy white with deep blush. Skin very tough, flesh tender,



BANNER PEACH

The Greening Nursery Co. introduced the Banner peach in 1899. It is one of the really great additions to the peaches of America.

fine flavor and quite juicy. One of the hardest in bud, quality very good. Ripens just before Champion. Stone nearly free.

Chair's Choice—A yellow fleshed peach and one of the best of the famous Crawford group. Color, golden yellow splashed with dull red. Juicy, tender, sub-acid or sprightly and pleasantly flavored. Quality excellent. Freestone. Ripens, late mid-season.

CHAMPION—Originated at Nokomis, Ills. Very hardy and productive. It is white-fleshed, par-excellence in quality. Fruit as attractive to the eye as the

PEACHES (Continued)

quality is to the palate. Flesh, creamy-white, tender, juicy, very pleasantly flavored, having a peculiar honeyed flavor which gives the Champion individuality. Color, creamy-white, carmine splashed with a blush of dark red. Stone, semi-free to free. Ripens with St. John early mid-season.

Crosby—A very hardy and productive variety. Fruit, medium size, roundish slightly flattened. Color, orange yellow blushed with dull red splashed and striped with darker red. Flesh deep yellow, juicy, firm but tender, sweet, mild highly flavored, very good in quality. Season, late maturing—middle September. Excellent for home use.

DEWEY—An early yellow fleshed commercial variety, perhaps the best for the purpose of any of the very early varieties. Fruit; medium size, round oblate in shape. Color; deep orange yellow blushed with dark red—(very pubescent) Flesh; yellow, juicy, tender, melting sweet, but sprightly and good in quality. Stone, semi-free to free. Ripens ten days before St. John.

Early Barnard—Medium, size, popular peach. Yellow with red in the sun. Flesh, yellow and very good. Tree vigorous. Good bearer. One of the hardiest. Freestone. Ripens first of September.

Early Crawford—A wonderful peach for the home orchard. We would hesitate to recommend it to commercial orchardists for reason that we have other varieties which will bear heavier crops and prove more profitable. Because of its beauty and unexcelled quality every home orchard should have it. Fruit, very large, golden yellow blushed with dark red. Flesh, deep yellow, juicy, tender, pleasant, sprightly, highly flavored. Excellent in quality. Stone free. Ripens two weeks ahead of Elberta.

ELBERTA—By far the most extensively planted variety. Planted with profit in every peach growing district in the U. S. Popular as a commercial variety because of its fruitfulness, its size and remarkable shipping qualities. Its principal fault is that it is not as hardy in either wood or blossom as many of the other varieties of peaches. Therefore, we strongly recommend that other commercial varieties of a harder nature be planted in the same orchard with Elbertas to more or less insure some financial returns during the off years of Elberta. To plant a solid orchard of Elbertas is not conservative business practice. We hesitate about recommending Elbertas for the home orchard as we have other varieties far superior in flavor.



ELBERTA PEACH

Fruit, very large, color, orange yellow overspread with red. Flesh, yellow, stained with red near the pit, juicy, firm but tender, sweet or sub-acid, mild, quality fair—most of our varieties are superior to Elberta in this respect. Stone free. Period of ripening varies with season. September 1 to 20. Crop usually picked in one week.

ENGLE'S (Engle's Mammoth)—Of the Crawford type but productive, and comes into bearing younger. An excellent commercial variety for Michigan where it originated. Fruit, large, round, oval to condote. Color, greenish yellow, changing to orange yellow, in part overspread with a bright red blush, splashed with darker red. Very attractive. Flesh, pale yellow, juicy, tender and melting, sweet or pleasantly sub-acid, mild. Excellent in quality. Stone free. Ripens one week earlier than Elberta.

FITZGERALD—An improvement over the Early Crawford in that it is hardier and more productive. In size, color and quality the fruit is almost identical. Fruit, large, roundish, oval to condote, somewhat compressed, with unequal halves, bulged at one side. Color, golden yellow more or less overspread with dull red blush with splashes and mottling of deeper red. Flesh, yellow, juicy, rather firm, tender, sweet or mildly sub-acid, very pleasantly flavored.

PEACHES (Continued)

Quality excellent. Stone free. If a fruit grower wishes to grow a Crawford type of peach in his orchard we recommend this variety for the commercial orchard. Ripens with Early Crawford two weeks before Elberta.

GOLD DROP—Remarkably productive and hardy. The tree bears so heavily that the fruit will average small unless the tree be heavily pruned, thinned of the young fruit and fertilized. The thinning and pruning tends to throw more vitality into the remaining fruit and the fertilization also adds vigor. Many of our leading commercial varieties have a tendency to overbear which is not a serious fault but really more of an asset. The transparent golden skin and flesh of this Peach make it one of the handsomest of all peaches. Its distinctive vinous rich, refreshing flavor makes it a very desirable fruit. Fruit, medium size, roundish oval bulged at one side with unequal halves. Cavity deep and abrupt.

Color, a transparent golden yellow. Flesh, pale yellow to the pit pleasantly and sprightly flavored, excellent in quality. Stone free. Gold Drop should be in every commercial as well as home orchard. Ripens one week after Elberta.

Gold Mine—A cross between Barnard and Late Crawford, resembling the latter parent. Fruit, large, color, greenish yellow, blushed with dull red. Flesh, yellow juicy, sprightly, pleasing, quality excellent. Stone free. A fine variety for the home orchard. Ripens one week after Elberta.

J. H. HALE—Originated in the famous Hale Orchards. Widely planted. About the size of Elberta. Color, yellow, with deep carmine blush. Good shipper. A handsome peach. Fine variety for market. Ripens about five days earlier than the Elberta. Not enough can be said about this wonderful peach as regards its size, beautiful color and shape. An excellent shipper. In New York the Experiment Station find it to be a vigorous growing tree. Here in Michigan we find it to lack that characteristic, in fact it is the slowest growing peach tree we have. Also as to its productiveness, on the average, we have not found it to be equal to the Elberta or others of a commercial importance. This variety is still new but indeed very promising.

Heath Cling—The oldest named American peach. Valuable for its hardiness, freedom from disease and excellence for preserving or pickling. Color, creamy-white blushed with red. Ripens very late about three weeks after Elberta.

KALAMAZOO—Medium size; slightly oblong. Color, yellow shaded with red. Flesh, juicy, rich, melting. Highly esteemed in Michigan. This peach is



**NEW
PROLIFIC
PEACH**

The New Prolific Peach was introduced by The Greening Co. in 1890. There are few superiors to this peach. Very profitable as a market variety.

similar to Gold Drop in its tendency to overbear. Refer to description of Gold Drop for cultural directions to follow for Kalamazoo. Ripens with Elberta or a few days later.

KIHLKEN SMOCK—We have discontinued propagating all other Smock varieties because the Kihlken Smock is so vastly superior. Larger, better and more beautiful than Beer's Smock and especially a more abundant bearer of fruit. Originated in the orchard of George Kihlken, at Danbury Ohio and introduced by us. Thousands of this tree have have been sold upon our recommendation and every commercial grower has repeated the planting of this variety after he saw the trees in bearing. Ripens two weeks after Elberta. An excellent season for the market. Stone free.

Late Crawford—Fruit of large size, Color, yellow or greenish yellow with dull red cheek. Flesh, yellow. Tree, vigorous and productive. One of the best late sorts. Stone free. Ripens with last of Elberta.

LEMON FREE—Almost Lemon shape, pointed at apex. Color, a pale lemon yellow when ripe. It is of large size, excellent quality and a valuable market sort. Flesh, yellow, juicy, stringy, tender and melting, sweet to sprightly, pleasantly flavored, very good in quality. Stone semi-free to free. An excellent variety for the commercial orchard, especially for those situated near a canning factory as it has the reputation of making a handsomer canned product than any other peach. It is a good peach for any commercial

PEACHES (Continued)

orchard. Season of ripening ten days to two weeks after Elberta.

MARQUETTE—New. As hardy as an apple tree. We are just beginning to introduce this variety. The original tree may be found at Marquette in the upper Peninsula of Michigan where it has withstood a temperature of 20° below zero without the least injury. We are positive that this variety can be successfully grown in cold climates where peaches have never been successfully grown before such as in Minnesota, upper Wisconsin, Iowa and northern Michigan. Fruit, medium in size and round. Flesh, creamy-white, very juicy and palatable. Good quality. Pit is small and free. Ripens two weeks earlier than Elberta.

Matthew's Beauty—Originated at Cuthbert, Georgia. Ripens two weeks later than Elberta, is better in quality and large in size. It is of Smock strain. Quality is best. Color, deep yellow streaked with red. Flesh, very thick and firm, yellow, vinous, juicy and very rich. Stone free. We have seen specimens of this fruit weighing 17 ounces. Season two weeks after Elberta or last of September.

Mayflower—Earliest ripening peach. Last week in June or first week of July. Tree productive. Fruit, medium in size. Color, dark red. Flesh, white, juicy and tender. Quality fair.

Mountain Rose—Fruit, large, color, whitish, splashed with light and dark red. Flesh, white and very delicious. Ripens the first of August or four weeks before Elberta.

NEW PROLIFIC—Introduced by us in 1890. One of the most popular market varieties. Fruit large. Color, golden yellow with rich crimson cheek. Flesh, golden yellow from pit to skin. Firm and unusually thick, flavor very rich and spicy. Pit small and free. This variety withstood the cold winter of 1898 better than any other variety. Tree a strong grower and very productive. Ripens one week before Elberta. Hundreds of thousands of this variety have been planted. The New Prolific should be fertilized pruned and thinned for best results.

Niagara—An improvement over the Early Crawford, ripening about one week ahead of Elberta. Fruit; very large. Color; orange yellow blushed with deep dull red with stripes and splashes of darker red. Flesh; yellow deeply tinged with red near the pit, juicy, coarse but tender, sprightly, very good in quality. Stone free. A fine variety for the home as well as the commercial orchard.

OHIO IMPROVED LATE CRAWFORD—The peach we offer you under this name is an improved selection bud-

ded from a Late Crawford that is very productive. All fruit growers know the Late Crawford is not usually a very heavy producer. This strain is a good producer. Growers who want an improved Late Crawford will find this one to be so. In all other respects it is like the Late Crawford, but it is very productive. It ripens the last of September.

Old Mixon Cling—Fruit, large. Color, whitish yellow with red cheek. Flesh, juicy, rich and highly flavored. One of the best clingstone peaches. Season, last of September.

Old Mixon Free—Fruit, large. Color pale whitish yellow with red cheek. Flesh, tender, rich and good. One of the best white fleshed peaches. Stone free, Season, first to middle of September.

ROCHESTER—A new yellow freestone peach having the exceptional merits of being early, ripening about August 10th, extraordinary sweetness and early bearing. In other respects it compares favorably with the best standard varieties. Fruit, large. Color, yellow prettily blushed. Flesh, sweet juicy and of delicious flavor. Keeps and ships well. Tree a vigorous grower, hardy and an annual and prolific bearer. Season, three weeks before Elberta.

ST. JOHN—A grand peach. Fruit, large, round, brilliant, showy. Color, yellow with fine red cheek. Flavor, unexcelled by any other peach. One of the earliest yellow peaches. Bears young. Moderately productive. Ripens three weeks before Elberta.

Salberta—A new yellow peach originating on the farm of William Rofkar on Catawba Island, Ohio. The growers in the peach belt of northern Ohio think this is a very valuable variety. Size; medium to large, nearly round. Color, deep yellow with dull red cheek. Flesh; yellow, firm and very juicy. Season; September in Northern Ohio.

SALWAY—Fruit; large and roundish. Color, deep yellow with a dull red cheek. Flesh, yellow, firm juicy and rich. One of the very best late peaches where it will ripen. Ripens after Kihlken Smock about three weeks after Elberta.

SEPTEMBER MAMMOTH—Fruit, extra large, somewhat elongated. Color; yellow. Flesh, yellow, delicious in flavor. Stone free. Good bearer. One of the finest peaches to plant for home purposes. Ripens about September 10th, tree originated here in Monroe from a seedling. Of Northern origin therefore hardier than Elberta. This peach was introduced by us after careful observation of its habits and we recommend it highly. Season, ten days after Elberta.

SOUTH HAVEN—(Trade Mark) Tree vigorous, of semi-spreading type. Very hardy. The original tree having with-

PEACHES (Continued)

stood the severe winter of 1917-18. At this time, all Elbertas were completely killed by the low temperature. Fruit, large, roundish, thick skinned, very uniform in size. Color, deep yellow with red cheek. Pit small. Stone free. Prolific bearer. Ripens more than two weeks earlier than Elberta or just a few days later than St. John. Introduced by us in 1916. Read pages 69 to 73 for full history of this peach.

Stump—Very large, roundish. Color, white with bright red cheek. Flesh, white juicy and good. Fine variety for

home use. Season, last of September.

Triumph—Tree a strong grower and very hardy. Fruit; large. Color, yellow with red cheek. Flesh, bright yellow. Great bearer and a good shipper. Stone nearly free when fully ripe. A very valuable early yellow peach, ripening with Alexander in July.

Weed's Late Barnard—Above medium size. Color, yellow with dark red cheek. Flesh; yellow, red at pit, very rich. Small pit, tree hardy. Ripens ten days before Elberta or just before New Prolific.



OUR SEPTEMBER MAMMOTH PEACH. ACTUAL SIZE

*All true to name—And Satisfactory
Eight Thousand Greening Grown Trees and he is Still Buying*

My two sons have placed an order with your Mr. Bortz today for 1500 trees which they will plant in the spring, 1920. I am proud to say that I am the owner of 8,000 trees, all of which were bought from your Company and they are satisfactory.

JOSEPH SMELTZER,

Elberta, Mich.

Apricots

IT is regrettable that a fruit as delicious as the Apricot, which ripens from one to two months before the best early peach, is so little known. A northern or exposed situation is preferable for the apricot as its chiefest fault is that it blossoms so early as to be caught by a frost.

By careful management the apricot may be expected to be as productive as the peach and is well worth cultivation. The varieties given are best to very best.

Alexander—An immense bearer. Fruit orange yellow, oblong, flecked with red; sweet, juicy, very beautiful. July.
Early Golden—Small, surface wholly pale orange; flesh orange, moderately juicy, sweet, good. Ripens about August 5th. Hardy, very productive, profitable for market.

Montgamet—Small. Fruit deep yellow, flesh reddish, firm with rather brisk flavor. Early. One of the best for pre-

serving.

Peach—Very large. Yellowish orange with a brownish orange cheek and mottled with dark brown to the sun. Flesh rich yellow, juicy, with a rich, high flavor. Ripens about August 15th.

Royal—Large. Pale orange with faintly tinged red cheek. Flesh yellow, firm, sweet, highly flavored, slightly sub-acid and good quality. Ripens about August 10th. A good market variety.

*A letter from one of the most successful fruit Associations in the U. S.
 ninety-five hundred trees!*

The order of trees received from you last spring for the South Haven Fruit Growing Corporation was very satisfactory. We set 9500 trees, including apple, peach, pear, plum and cherry, with a very small percentage of loss.

Yours truly,

F. E. WARNER,
 Manager.

*Two Thousand Greening Grown Trees. All true to name
 Say's Growers Appreciate what this means*

My orchard being seven years old this past spring, came into general bearing, both apples and peaches. I am pleased to state that out of over 2,000 trees, bought of you, I have not found one that is not true to name. Growers appreciate what this means. We are pruning to low tops. Please send your low top circular

JACKSON FARMS

Per C. Jackson

*The Austrian Prune (Trade-Mark) Plum. Introduced by us (See pages to
 Are Productive even tho large in size*

Ann Arbor, Mich., Sept. 30, 1919

Mr. Charles E. Greening:—

Dear Sir—Yours at hand. I have 14 trees in bearing. I put an exhibit at the Washtenaw Fair; they took the first prize. Mr. Scott, your agent from Ypsilanti, was there. I will enclose you two letters from W. L. Schoof, Macomb; please return these to me again. Two parties came from Flint, after they saw the plums on the trees they were more than pleased. Mr. Waterman and his wife were here and his neighbor and his wife from Salem. When Mrs. Waterman saw the plums on the trees she said, "Ain't you ashamed that you countermanded part of your order?" He said, "I am," but said he thought because the plums were so large that they would be shy bearers; but he was more than pleased when he saw the way they bear, limbs the size of a lead pencil from 8 to 12 plums on and the trees free from all disease, there is no sign of black knot on any of them. I want you to give me full instructions how plums want to be sprayed; I never sprayed any of them the way they ought to be sprayed. If you should come let me know so that I will be home.

Yours very respectfully,

GEO. APRILL



The Austrian Prune Plum

We offer in this Department Plums of American, European and Japanese varieties best adapted to the northern portion of the United States.

And we are also offering our own introduction, the Austrian Prune Plum, which is represented on this page in the cut placed at the top with a photographic insert of Mr. George Aprill, Ann Arbor, Michigan.

The history of this plum is this: Mr. Aprill came to the United States from Austria, his brother remaining there as Gardener for the late Emperor Joseph. He sent Mr. Aprill some grafts in 1893, among them a graft of this Plum, which is known in Austria by the name of Bodibrad, which means in English "Red and Black."

Mr. Aprill says on the original tree which was grafted he got two ripe plums the second year after grafting, and the tree has borne every year since 1895.

This plum in color is more black than red when fully ripe and was introduced by us to the general public in 1905. It has, in these years, won many first prizes at Horticultural Exhibits, and we think there is no Plum in existence equal to it. We have four on our desk today, which when they were placed in the preservative weighed slightly more than a pound. This plum has thick yellow meat, a very small pit, and is the most delicious we have ever tasted for dessert purposes. No other plum excels it in either hardiness or bearing qualities.

Although most large sized plums are shy bearers, the Austrian Prune is a regular bearer and never fails to bear a good crop each year.



MAMMOTH AUSTRIAN PRUNE TAKEN FROM TWO-YEAR TREES
(Reduced to One-half Size)

Largest and finest flavored plum ever introduced. The original tree in America is located at Ann Arbor, Michigan, on the farm of Mr. George Aprill, who imported the scions from Austria. Our buds were taken from this very tree. See complete description in list of varieties.

As yet we have never been able to produce enough trees to supply the demand. If you are a lover of fine plums you should add this to your collection. If you are growing plums for market you should surely test it out and you will be convinced as thousand of others have that it is the most delicious of all plums now growing in America.

THE PLUM

The Plum is more nearly a universal fruit than any other with the exception of the grape. Great progress has been made the last twenty years towards improving and developing the plum and in the introducing of foreign varieties. We in the United States can grow not only the true American varieties but European, Chinese, Japanese, and the Hybrids also.

It is well known that some varieties are so deficient in pollen that they do not fertilize themselves, and it is advisable, in fact a necessity, that all plum orchards should be planted of two or more varieties alternating the rows.

AMERICAN AND EUROPEAN VARIETIES

AUSTRIAN PRUNE—Tree very vigorous, upright, perfectly hardy, and is a young bearer. Fruit of this plum is the handsomest and largest in cultivation. Color, attractive dark reddish purple. Flesh golden yellow, sweet and mild: excellent quality. Good shipper and keeper. Ripens about middle of September. Takes highest honors and premiums everywhere. (E.)

Bradshaw—Fruit very large; dark violet

red; flesh yellowish green, juicy and pleasant. Tree vigorous, erect and productive. Middle of August. (E.)

DeSoto—Considered the best of American plums by fruit growers. Quality good, very productive, shipping as well as any plum. Color, dark crimson over orange yellow. Flesh, golden yellow, very juicy, tender, melting, mild. Stone nearly free. (A.)

PLUMS—AMERICAN AND EUROPEAN VARIETIES

(Continued)

DIAMOND—A superb and showy plum of enormous size; dark purple, with thick bloom. Vigorous, hardy, productive. September. (E.)

German Prune—A large, long, oval variety, much esteemed for drying; color dark purple; of a very agreeable and rich flavor. Tree very productive and hardy. September. (E.)

GRAND DUKE—Color of Bradshaw; fruit very large, of fine quality; very productive. Tree rather a poor grower. (E.)

Green Gage—Rather small, round, suture faint; surface green, becoming yellowish green, usually with reddish brown dots and network at base. Flesh pale green, melting, juicy, exceedingly sweet and rich and unequalled in flavor. Slow grower. Ripens about the middle of August. (E.)

Gueii—Extensively grown for market, having proved to be one of the most profitable for that purpose. Tree a hardy, very strong, vigorous and upright grower, spreading with age and bearing; an early and very abundant bearer. Fruit large, roundish oval; skin dark purple, covered with a thick blue bloom; flesh pale yellow, a little coarse, firm, juicy, sweet, sprightly, sub-acid; freestone. Last of August and first of September. (E.)

Imperial Gage—Fruit rather large, oval, suture distinct, surface green, slightly tinged yellow, with marbled green stripe; bloom copious, white; flesh greenish, juicy, melting, rich, of very best quality, sometimes adhering but usually nearly free from the pit. Ripens August. Valuable for home use only. (E.)

Italian Prune (Fellenberg)—A fine late plum; oval, purple; flesh juicy and delicious, parts from the stone; fine for drying. September. (E.)

LOMBARD—Medium; round oval; violet red; juicy, pleasant and good; adheres to the stone. Tree vigorous and productive. Last of August. A valuable market variety; one of the most hardy and popular. (E.)

MONARCH—One of the most valuable of the late introduction from England. Tree robust, with dense foliage; an



BURBANK PLUM
(Much Reduced)

abundant bearer. Fruit very large, roundish oval; dark purple-blue; perfect freestone. October. (E.)

Prince (Prince's Yellow Gage)—Rather large; golden yellow; flesh rich, sugary and melting; very hardy and productive; a favorite sort. August. (E.)

REINE CLAUDE—Large; green yellow, spotted with red; firm, sugary and of fine quality; very productive. September. (E.)

Shipper's Pride—Fruit large; dark purple; nearly round; flesh firm and excellent; a good shipper. Tree hardy and productive. Excellent for canning. September. (E.)

SHROPSHIRE (Shropshire Damson)—Fruit small, oval; skin purple, covered with blue bloom; flesh melting and juicy, rather tart; separates partly from the stone. September. (E.)

Yellow Egg—Fruit of largest size; skin yellow, with numerous white dots; flesh yellow, rather coarse; sub-acid, fine for cooking. Tree vigorous and productive. Last of August. (E.)

York State Prune—Large, oval, dark blue, light bloom, firm, juicy; free. Vigorous productive; a good market plum. (American.)



GRAND DUKE PLUM
(Much Reduced)

JAPANESE PLUMS

Abundance—One of the best known and most popular of the Japan sorts. From our experience we can recommend this variety for more extensive planting. Medium to large, oblong; amber, nearly covered with bright red and overspread with a thick bloom; flesh orange yellow, juicy, melting and of delicious sweetness; stone small and flesh readily parts from it. Tree a strong grower and an early and profuse bearer. Valuable for canning and market. August.

BURBANK—The Burbank Plum is one of the best of the celebrated Japanese varieties. It is proving remarkably successful the country over. No other plum ever became so popular in so short a time. This is because it is practically curculio-proof and is very free from black knot. It has been fruited many years in this country and is perfectly hardy. It seems to succeed in any soil, sand, clay or loam. It can be picked just before ripe and will ripen and color up perfectly, and will not lose its flavor. Will keep fully three weeks in perfect condition after ripening. We have kept them in a cupboard in our office for thirty days during very warm weather. Abundant yearly bearer; fruit large, roundish, dark red or purplish, with thin lilac bloom; flesh amber yellow, melting, juicy with rich sugary flavor; stone small; bears second year after planting; need close pruning. First to middle of August to September.

Climax (Hybrid)—Vigorous upright grower; productive as Burbank; several times larger; two weeks earlier and higher colored. Color, deep dark

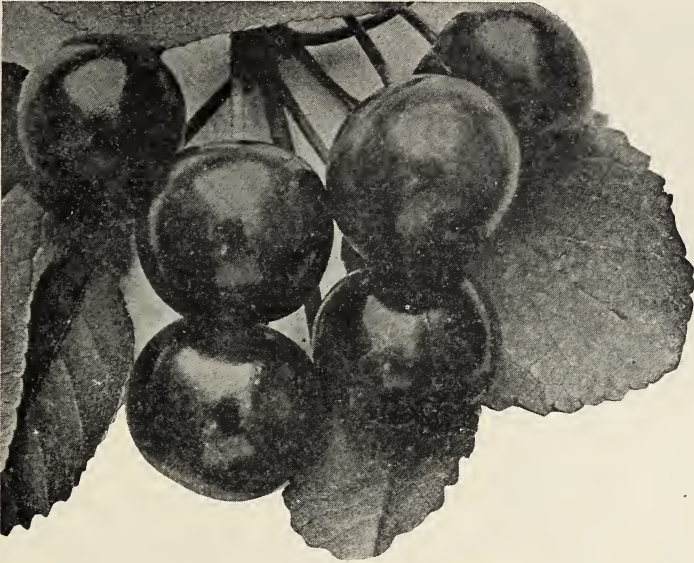
red; skin firm; flesh yellow, sweet, rich, fruity and of fine quality.

Hale—Tree upright. Fruit medium to large, globular not pointed; skin yellow mottled and speckled with red; handsome; flesh yellow, soft, juicy, good. Cling. Mid-season. Sometimes colored poorly and drop prematurely.

Red June—The best Japan ripening before Abundance. Medium to large; deep vermilion red with handsome bloom; flesh light, lemon yellow, firm, moderately juicy; pleasant quality. Tree upright spreading, vigorous and hardy; productive; ripens between Willard and Abundance. Last of July or early August.

Satsuma (Blood)—Very prolific in a mixed orchard. Fruit large, round-oblong; skin dark red speckled with greenish dots; flesh very firm, blood red, cling, rather coarse, good. Excellent for canning but not good for eating out of hand. Hardy and a vigorous spreading grower. Season late and a very long keeper. (Japanese.)

Wickson—Originated by Luther Burbank, of California, who says: "This variety stands pre-eminent among the many thousand Japanese varieties I have fruited." Tree hardy and an upright, strong grower, with narrow leaves; very productive. Fruit largest of the Japans, handsome deep maroon red; firm; a long keeper and a fine shipper; flesh dull yellow, meaty, of good quality; destined to become one of the most valuable plums for market; keeps fully three weeks after picking. Fruit ripens after Burbank. Tree somewhat tender in cold northern countries. Middle of September.



LARGE MONTMORENCY CHERRIES

CHERRIES

THE cherry, like the grape, succeeds where many other fruits fail. It doesn't ask for favorite spots and bears almost annually. Among the hundreds of varieties cultivated in America, those given herein are the most desirable in many respects.

SOUR VARIETIES

Brusseler Braune—Fruit large, globular, heart shaped; very dark red. Flesh firm, little acid, astringent; tree vigorous, prolific. Ripens middle of July. Good.

Dyehouse—A very early and sure bearer; ripens a week before Richmond and quite as productive and hardy. Color red. June.

Eugenie (Empress Eugenie)—Fruit large; dark red; very rich, tender and sub-acid. Tree heads very low. Ripe about July 1st.

LARGE MONTMORENCY—A large, red, acid cherry; larger than Richmond, and fully ten days later; best market variety among sour cherries. End of June.

Late Duke—Large, light red; late and fine. Last of July.

May Duke—Large, red; juicy and rich; an old, excellent variety; vigorous and productive. Middle of June.

MORELLO (Eng. Morello)—Medium to large, blackish red; rich, acid, juicy

and good; very productive. Tree a moderate grower. August.

Ostheim—A hardy cherry from Russia. Fruit large, roundish, ovate; skin red, dark at maturity; stalk long; flesh liver-colored, tender, juicy, almost sweet. Its ripening season extends over about two weeks. Trees usually begin to bear the second year. Last of June.

Philippe—Large size; flesh red, tender, juicy with mild, sub-acid flavor; very vigorous and productive; of great value. A native of France. Middle of July.

RICHMOND—Medium size; dark red, melting juicy, sprightly acid flavor. This is one of the most valuable and popular of the acid cherries, and is unsurpassed for cooking purposes. Tree a good grower, with roundish, spreading head, and is extremely productive. The most hardy of all varieties, uninjured by the coldest winters. Ripens through June.

Wragg—Very large, with a sweet sub-acid flavor; moderate grower. Last of July.



BLACK TARTARIAN CHERRIES

CHERRIES (Continued)

SWEET VARIETIES

BING—One of the best black cherries in existence. It is large, firm and delicious, and a good shipper. Tree hardy and upright grower. Middle of June.

GOV. WOOD—Very large; rich; light yellow with red cheek; juicy and sweet. One of the best. Last of June.

Lambert—A very promising cherry of largest size. Flesh red, firm and of unsurpassed quality. Stands in the lead as a shipping variety. June.

NAPOLEON—Very large; pale yellow with bright red cheek; very firm; juicy and sweet; vigorous grower and very productive; one of the best. First of July.

NELSON—Tree a strong upright grower and quite hardy for a sweet cherry. Fruit large and slightly conical, quite firm and fairly sweet. It ripens mid-season to late and is an excellent shipping sort. The trees seem to be unusually productive for the class and it is a promising variety for planting in section where this fruit thrives.

Rockport—Large; pale amber with clear

red; a very excellent and handsome cherry; a good bearer. Middle of June.

SCHMIDT'S BIGARREAU—Remarkably hardy and productive. Fruit grows in clusters, and is of the largest size. Skin deep black; flesh dark, tender, juicy, with a fine, rich flavor; stone small. July.

TARTARIAN (Black Tartarian)—Very large; bright purplish black; juicy, very rich, excellent flavor. Tree a vigorous grower and productive. Last of June or early July.

WINDSOR—New seedling originated at Windsor, Canada. Fruit large, liver-colored, quite distinct; flesh remarkably firm and of fine quality. Tree hardy and very prolific. The most valuable late variety for market or family use. July.

Yellow Spanish—Fruit very large, heart shaped. Color, pale, waxen yellow with handsome light red cheek to sun. Flesh firm with fine rich flavor. Season medium. One of the best and most popular.

Mongrel fruit trees may pay but—
pedigreed trees pay doubly.

GRAPES

NO fruit is so absolutely universal as the grape. It is mentioned by all great travelers and historians and is found in every clime except the two extremes. The earliest settlers in the United States found it growing from Maine to Florida, and having been constantly improved, everyone can grow it who will and no home plot is too small at least for all that is needed for family use.

BLACK GRAPES

CAMPBELL'S EARLY—Its strong, hardy, vigorous growth; thick, heavy, perfectly healthy foliage; very early ripening and abundant bearing of large and handsome clusters of excellent quality, combined with the most remarkable keeping and shipping qualities, form a combination equaled by no other grape. Its period of full maturity is from the middle to the last of August, according to the season, ripening with Moore's, but unlike that variety, it has kept sound and perfect, both on and off the vine, for weeks after Moore's was decayed and gone. It is, both as to cluster and berry, of large size, of a glossy black color, covered with a beautiful blue bloom; pulp sweet and juicy; free from foxiness; seeds small, few in number and part readily from the pulp.

Champion—A large grape of medium quality; a strong grower and very hardy; the earliest of all. Succeeds in all sections.

CONCORD—The best known and most popular of all grapes. Best for table, wine and market; succeeds over a great extent of country. Ripens in September.

Early Ohio—A new black grape; its points of merit are extreme earliness, hardiness, productiveness and being of better quality than most early sorts. Berries large, firm, of spicy, pleasant flavor; hangs to the stem with a persistency that makes its shipping qualities of the highest order. Ripens about three weeks before the Concord.

Eaton—Black; bunch and berry of the largest size; not quite so early or sweet as its parent, the Concord, but less foxy; pleasant, juicy, with tender pulp; vine very vigorous, healthy and productive.

MOORE'S EARLY—Bunch medium; berry round and as large as the Wilder or Rodger's No. 4; color black, with a



CONCORD GRAPES

heavy blue bloom; quality very fine; vine exceedingly hardy. It has been entirely exempt from mildew or disease; in vigor of growth it is medium. Its earliness makes it desirable for a first crop, maturing as it does, ten days before the Hartford and twenty before the Concord.

WORDEN—A seedling from the Concord, which it greatly resembles in color and appearance. It is, however, several days earlier; much more delicious and melting and has a flavor that is equaled by no other grape grown. Berries and clusters are very large and compact; vine is fully as hardy as the Concord and more productive. It is a sure bearer. A valuable market sort.

RED GRAPES

Agawam (Rogers No. 15)—Bunches large, generally loose, berries large, round, color dark red or maroon; flesh quite tender, juicy, vinous, with a peculiar flavor much admired by some; vine vigorous and productive.

BRIGHTON—A cross between Concord and Diana Hamburg. Resembles Catawba in color, size and form of bunch and berry. Flesh rich sweet and of the best quality. Ripens earlier than the Delaware. Vine vigorous and hardy. This variety has now been thoroughly tested, and it may now be truly said to be without an equal

GRAPES (Continued)

among early grapes. Succeeds best when planted near other varieties of grapes.

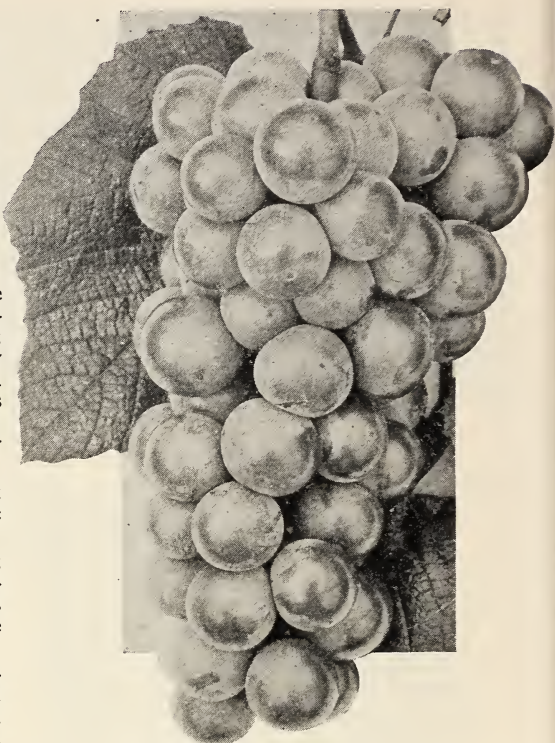
Catawba—Well known as the great wine grape of Ohio, Kentucky, etc. Bunches large and loose; berries large, of a coppery red color, becoming purplish when well ripened; two weeks later than Isabella; requires the most favorable soils and situations, good culture and warm seasons to mature.

DELAWARE—Still holds its own as one of the finest grapes. Bunches small compact, shouldered; berries rather small; round; skin thin, light red; flesh very juicy, without any hard pulp, with an exceedingly sweet, spicy and delicious flavor. Vine moderately vigorous; hardy and productive. Ripens right after Brighton.

Salem—Bunch large; berry large, round; flesh tender, juicy, with a rich aromatic flavor; slight pulp; good keeper.

Vergennes—Clusters large; berries large; color light amber; flavor rich and delicious; ripening here fully as early as Hartford. Its keeping qualities are superior.

Woodruff—A handsome, profitable market sort; vine vigorous, productive. Bunch and berry large, attractive; ripens early; fair quality, long keeper, good shipper.



NIAGARA GRAPES

WHITE GRAPES

Diamond—A vigorous grower; with dark, healthy foliage, entirely free from mildew. A prolific bearer; bunches large, handsome and compact, slightly shouldered; color, delicate greenish-white, with rich yellow tinge when fully ripe. Skin smooth, free from specks; pulp tender, juicy and nearly transparent, with very few seeds. Berry about the size of Concord; quality best; rich, sprightly and sweet. Ripens a few days before Concord.

GREEN MOUNTAIN—Color greenish white, skin very thin; pulp exceedingly tender and sweet; contains but one or

two seeds, which separate from the pulp with the slightest pressure; quality superb. Ripens with Moore.

NIAGARA—This white grape is justly regarded as one of the very best known; very fine quality for a table grape; very prolific, hardy and of fine flavor. Fruit keeps well if carefully handled; one of our favorite sorts.

Pocklington—Vine very vigorous, hardy and productive; bunch and berry of good size; color a light lemon yellow; flesh moderately tender, sweet, with a peculiar aromatic flavor. Ripens just ahead of Concord.

Our fruit trees are the offspring of
carefully selected parent stock.



CELLAR NO. 5, GREENING NURSERY CO.

Cellar No. 5 had in it a good many thousand trees packed away when the above photograph was taken. These are fruit trees which must be kept at certain degrees of both temperature and moisture.

As these cellars are larger than a city block and the camera about the middle of aisle you can form some idea as to the number of trees on both sides of this driveway. Our statement "Trees by the Million" is literally true. Come and let us show you!

Why spend thousands of dollars for
interior decoration of a home and leave
the exterior undone?

Small Fruit Department



PLUM FARMER

PLANTING SMALL FRUITS

THE soil should be mellow and rich. Plant Red Raspberries 2x7 feet apart; Black Raspberries, Blackberries, Dewberries, 3x7 feet apart. Conrath and Columbian Raspberries, on account of their vigor of growth, should be planted 4x8 feet apart; Currants and Gooseberries, 4x6 feet apart; Strawberries for field culture, 1x4 feet, and for garden 2 feet apart. Plant small fruit about 2 inches deeper than they stood in the nursery, except Strawberries, which should be planted so as to leave the crown even with the surface—too deep

planting will smother the plant. Spread the roots, in planting small fruits, as much as possible, and press the earth over the roots firmly with the hand. If planted in the fall, cover with coarse straw manure to prevent the plants from being heaved out during the winter. After planting, cut back the tops to 4 or 5 inches from the ground.

NUMBER OF PLANTS REQUIRED TO SET AN ACRE AT THE DISTANCES GIVEN ABOVE

Red Raspberries (2x7 feet), 3,111.

Black Raspberries, Blackberries and Dewberries (3x7 feet), 2,074; (4x8 feet), 1,361.

Currants and Gooseberries (4x6 feet), 1,815.

Strawberries (2x4 feet), 5,445; (1x4 feet), 10,890.

RASPBERRIES

BLACK CAPS

Conrath—Six days earlier than Gregg. A deep rooter and most vigorous grower. Very hardy, highly productive; color black; sweet and delicious. Being so early and large it brings the highest price in the market. All experiment stations give it the highest praise. The drought does not affect this sort on account of its deep rooting and early fruiting.

CUMBERLAND—A mammoth mid-season black cap that holds its stout, stocky canes with handsome fruit. Its great glossy berries are firm enough to ship well, and of good quality. In hardiness and productiveness, among the best.

Gregg—Of good size; fine quality; very productive; an old reliable market sort;

fairly hardy. Well known everywhere.

Haymaker—We recommend this new raspberry. It is an Ohio seedling of the tall, strong-growing Columbian type, with berries similar in color size and texture, but a little more acid and produced in even heavier crops.

Kansas—Plant is a strong grower; fruit jet black, as large or larger than Gregg, a splendid yielder and hardy. One of the very best. Ripens before Gregg.

PLUM FARMER—It ripens its crop in a few days and is early enough to get the good prices. Perfectly hardy is a good grower and productive. The berry is large and of a quality that makes it a good market berry.



CUTHBERT RASPBERRIES

RASPBERRIES (Continued)

RED AND YELLOW VARIETIES

COLUMBIAN—An improvement on Shafter, which it resembles, but the berry is firmer, adheres to the bush much longer, and retains its shape better, both on the market and for canning; color dull purplish red. Bush a strong grower, attaining a very large size. One of the hardiest and wonderfully prolific. Unexcelled for productiveness, stands at head for canning, making jam, jelly, etc. Should be planted two feet farther apart than any other variety.

CUTHBERT — A remarkably strong, hardy variety; stands the northern winters and southern summers better than any other variety. Berries very large,

conical, rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail in good condition; flavor is sweet, rich and luscious. The leading market variety for main crop.

Golden Queen—This variety is a seedling of the Cuthbert, but the color of the fruit is a rich golden yellow. The flavor is of the highest quality. Its size equal to the Cuthbert; immensely productive; a very strong grower, poor shipper.

Marlboro—Large size; light crimson color; good quality and firm. Vigorous and productive. One of the best large early berries for the North.

EVERBEARING RASPBERRY

ST. REGIS (Red)—Fruit commences to ripen with the earliest and continues on young canes until October. Berries bright crimson, large size, rich, sugary, with full raspberry flavor. Flesh firm

and meaty, a good shipper. Wonderfully prolific. Canes stocky, of strong growth, with abundance of dark green feathery foliage.

We cannot afford to compete against
“cheap” prices and give quality.

BLACKBERRIES

Ancient Briton—Very vigorous, healthy and hardy, producing large fruit; stems loaded with good-sized berries of fine quality, which ship well.

BLOWERS—Originated in the celebrated small fruit belt of Chautauqua County, N. Y. One of the hardiest, most productive, of the finest quality and brings on the market the highest price of all blackberries.

Early Harvest—One of the earliest blackberries in cultivation. Habit of growth, dwarf-like; fruit medium size and good quality. Adapted only for southern climate unless protected in winter.

EL DORADO—H. E. VanDeman recommends this variety thus: "This berry was noted last year, and is of much promise." It is an oblong, irregular berry of large size, fruiting in pendulous, slender, hairy spikes with few thorns. Color, black; flesh deep crimson, with tender core; flavor sweet, rich quality and very good.

ERIE—Very large, jet black and early. Perfectly hardy, a strong grower and a great bearer, producing large, sweet berries; earlier in ripening than any other sort.

Mersereau—Large oval, sparkling, black, sweet, rich and melting. Hardy and productive.

Rathbun—Very large, jet black, without hard core; small seeds, extra fine quality; very rich aroma. Plant suckers very little. Very hardy. Ripens early.

SNYDER—Extremely hardy; enormously productive; medium size; no hard sour



ERIE BLACKBERRY

core; very few thorns and they are nearly straight and short. One of the hardiest sorts and most profitable for market.

Wilson—Large, sweet, fair flavored; very productive; ripens up the fruit together; requires protection in some localities.

We are the only nursery in the United States carrying on scientific bud selection work.

DEWBERRIES

THE Dewberry is much like the Blackberry in fruit but the canes are trailing. It fruits earlier than the blackberry and prolongs the blackberry season. The canes should be cut out as in blackberries, but the growing canes should be tied to a stake, one stake to each hill, while cultivating during the summer, cutting the cords in late fall and allow the canes to lie on the ground for winter protection. This also facilitates the picking.

Just at present, growers of Western Michigan say the dewberry is the most profitable crop they can raise and deserves more than passing attention.

The Lucretia, which we describe below, is by far the best. It is delicious.

Lucretia—One of the long-growing, trailing blackberries; in earliness, size and quality it equals any of the tall-growing sorts. Valuable for home use. The plant is perfectly hardy, healthy and remarkably productive, with very large, showy flowers. The fruit, which ripens early, is often one and one-half inches long by one inch in diameter, soft, sweet and luscious throughout, with no hard core. It has proven highly satisfactory wherever tried and many say it is the best of all the blackberry varieties for family use.



LUCRETIA DEWBERRY

Mongrel fruit trees may pay but—
pedigreed trees pay doubly.

CURRENTS

MR. John J. Thomas, in his *American Fruit Culturist*, says: "The currant, from its hardiness, free growth, easy culture, great and uniform productiveness, pleasant flavor, early ripening, is one of the most valuable of our summer fruits."

Properly cared for, the currant is one of the most profitable small fruits that can be grown. It does well in the shade, therefore invaluable for intercropping. The varieties we catalog have all been tested and are good.

LONDON MARKET (Red)—For many years this variety has been fruiting in Michigan, where it is now planted extensively and regarded as the best market variety of this great fruit State. Plant is extremely vigorous, with perfect foliage, which it retains through the season; an enormous cropper.

PERFECTION (Red)—A cross between Fay's and the White Grape, retaining the valuable characteristics of both. Beautiful, bright red; as large or larger than Fay's, holding its size to the end of the bunch; easy to pick, a superior bearer, less acid and of better quality than any other large currant in cultivation.

Red Cross—Large red berry, long clusters and the stem long with fruit at stem; flavor mild, sub-acid, excellent mid-season. Growth vigorous, productive. Valuable variety.



WILDER CURRANT



WHITE GRAPE CURRANT

Victoria (Red)—A splendid variety, ripening two or three weeks later than Cherry and continuing in fine condition for a long period. Bunches extremely long; berries of medium size, brilliant red and of the highest quality. The greatest bearer of all currants.

White Grape—Very large; yellowish white, sweet or very mild acid; excellent quality and valuable for the table. The finest of the white sorts. Very productive.

WILDER (Red)—A new red currant, with large, fine-flavored fruit of a bright, attractive red color, even when over-ripe. The leading garden and market variety; a strong, vigorous, erect grower and a great yielder. Fruit as large as the largest; a good shipper. Best of all red currants.



THE DOWNING GOOSEBERRY

GOOSEBERRIES

Chautauqua—Size very large; fruit a beautiful light yellow color; quality good. An American seedling.

Columbus—An American seedling of the English type; large size; color greenish yellow, smooth, and of fine quality; a strong grower, with large glossy foliage. New.

DOWNING—Fruit is much larger than the Houghton; roundish; light green, with distinct veins; skin smooth; flesh soft, juicy and very fine flavored. Vigorous and productive. The most valuable American sort.

Houghton—A vigorous American sort; very productive. Fruit medium, roundish, smooth, of a pale red color; tender,

sweet and of a delicious flavor; very profitable for canning and catsup.

RED JACKET—A new red berry, larger than Downing; smooth, very prolific and hardy, quality and foliage the best. For years it has been tested by the side of the best American and English sorts, and is the only one absolutely free from mildew either in leaf or fruit. Promises to be the variety we have so long been waiting for, equal to the best English kinds, and capable of producing large crops under ordinary cultivation wherever gooseberries can be grown.

Smith—From Vermont. Large; oval; light green, with bloom; flesh moderately firm, sweet and good. Vigorous grower.



CURRANTS AND GOOSEBERRIES



THE BRANDYWINE

STRAWBERRIES

IN 1483 the garden of the Bishop of Ely at Holburn, England, was celebrated for its excellent strawberries. In the days of Pliny, one of our earliest writers, this fruit is mentioned as having been relished by young and old. Virgil wrote of the strawberries when Rome was in her hey-day. Centuries have passed and the strawberry has been improved so much that the writers referred to above would not now recognize it.

There are literally hundreds of varieties and most of them are good under certain conditions. We list all the really valuable sorts such as we would plant ourselves. You will not go wrong in planting any that we catalogue and you will not be "chasing rainbows" when you plant the new Everbearing varieties. In our opinion, the Progressive and the Superb are the best of these.

COMMON OR JUNE VARIETIES

BRANDYWINE (Per.)—Season medium to late. One of the grandest berries ever introduced. It is one of our favorites. It is one of the heaviest fruiters and a splendid shipper. Berries very large, deep red to center. Stems short and stout and holds its great load of berries well up from the ground. One of the strongest pollenizers for pistillates of the season.

Bubach (Imp.)—Combines many excellent qualities, such as great and uniform size, fine form and color, good quality of fruit, unsurpassed productiveness and great vigor of plant. It ripens almost as early as the Crescent, continues about as long in bearing, and fully as prolific; leaves large, dark green, and endure the hottest sun perfectly. The leading market variety Succeeds best on heavy soil.

STRAWBERRIES (Continued)

Clyde (Per.)—This is perhaps the most popular new strawberry ever introduced, seeming to do equally well in all parts of the country. The Clyde ripens early, is as large as Bubach and much firmer. The plant is very vigorous and healthy, foliage light green in color.

Crescent (Imp.)—Large, averaging larger than Wilson's Albany; conical; color a handsome bright scarlet; quality very good. In productiveness unequaled, having produced over 400 bushels per acre. Plants very strong and vigorous; a most valuable market sort.

Cumberland (Per.)—Very large, round; of good quality; pale scarlet; soft. Excellent for home use. Early to late.

DR. BURRILL (Per.) known as *The Million Dollar Strawberry*.

Dr. Burrill is an improved Senator Dunlap, and was originated by Dr. Reasoner of Illinois who originated the famous Senator Dunlap. It is a cross of Senator Dunlap and Crescent, both being wonderful producers. This new berry is the biggest cropper of all strawberries. Berries are very large and uniform in size and shape.

This great new variety is a strong fertilizer, and its season of blossoming and fruiting is extra long. It ripens in mid-season. Foliage is large, of a beautiful dark green and very hardy and healthy. With its extra long, strong roots, heavy crowns and healthy foliage, it is able to produce its wonderful crop of fruit every season. Berries are very dark red in color, and are of the very best quality.

DUNLAP (Senator Dunlap) (Per.)—Medium to large, flattened slightly. Dark crimson. Flesh red, firm and fine in texture. Quality excellent. Plant hardy and strong grower.

Excelsior (Per.)—Another early sort of great promise from Arkansas. It is an excellent grower of good, clean foliage, making large stocky plants, which is one of the main business qualifications of the strawberry. Earlier by several days than Michel's Early. It does well on light sand or heavy land. The berry is dark red, nearly as dark as Warfield; of good size; one of the best shippers; will stand as much handling as the old Wilson without bruising. It is a good plant maker, medium in size and perfectly healthy; blossom perfect.

GANDY (Per.)—Unsurpassed in growth and healthfulness of foliage. Berries bright crimson color, uniform size and shape, large, ripens late and are very

firm. Produces a crop of berries the first season plants are set. Latest of all. A profitable market sort.

GIBSON (Per.)—One of the best and most profitable sorts for both home and market. Plants are strong growers with long roots and abundant foliage, exceedingly productive. Berries extra large, choice flavored, dark glossy red clear through.

HAVERLAND (Imp.)—The most productive large berry under cultivation. Season medium early until late. Plants very large, healthy, vigorous, and ripen their fruit evenly and early, holding on through the season. Berries are fine, uniform in shape, very large; excellent flavor and bright red.

Jessie (Per.)—On moist soil is a robust healthy plant; long, stout fruit stalk, holds the fruit well up from the ground; berries of the largest size, medium to dark red color all the way through; firm and solid, and of the most excellent quality; very few small berries and none of the largest ones of irregular shape. Season medium.

Michel (Per.)—Long been known as the extra early berry. It should always be grown in hedgerow, when it is very productive. It makes runners very freely, and many have propagated in beds so thickly that light was excluded and thus it lost its tendency to form fruit buds. Berries medium size, cone shape and a good shipper.



SENATOR DUNLAP

STRAWBERRIES (Continued)

Nick Ohmer (Per.)—The fruit is of the very largest size. It is dark, glossy red, firm and excellent flavor. Medium to late.

Parker Earl (Per.)—Plant robust and healthy; withstands changes of climate; berry regular, conical, medium size, glossy crimson; flesh firm; a good shipper; season medium. Succeeds well on rich, loamy soil. We can highly recommend it for general culture.

Sample (Imp.)—Large size; mid-season, fine quality; conical shape and regular in form. One of the best for market.

Sharpless (Per.)—Very large; average specimens, under good cultivation, measuring one and one-half inches in diameter; generally oblong, narrowing to the apex; irregular, often flattened;

clear, light red, with a smooth, shining surface; firm, sweet, with a delicious aroma; vigorous, hardy and very productive when raised in hills with runners cut off.

Tennessee Prolific (Per.)—Medium size, long, bright red, fine grained and juicy. Early and abundant bearer.

WARFIELD (Imp.)—The greatest market and shipping berry. A deep rooter, and can mature an immense crop; berries above medium in size, dark red to the center, and one of the best canning and shipping berries grown.

Wilson (Per.)—Medium to large; dark red; very hardy, vigorous and productive. Succeeds best on heavy soil. One of the most widely known and universally successful. Season early to late.

EVERBEARING STRAWBERRIES

The Everbearing Strawberries are no longer an experiment. They have come to stay. There are many varieties and more being offered every day, but after a continuous test since they were first brought out, we offer only two and these are the best of their class. Each are practical croppers—bring profitable prices on the market. But if one wishes the largest size and richest quality of fruit in the fall, the blossoms must be picked off until about the first of August.

PROGRESSIVE—This is by far the best Everbearing; although not so large as the *Superb*, it is considered of superior quality and in our opinion is best. Fruit is of good size and good color. Plants are very vigorous and healthy, giving splendid pickings of high quality berries for a long time. Fruit from the middle of July to middle of November, according to season.

Superb—This is one of the largest, if not the largest Everbearing sort. The plants are strong and stand the weather well. Fruit is very large, rich deep red; glossy and attractive. Fruit season July 15th to November 15th, according to season.

MULBERRIES

Downing's Everbearing—Very large, black, handsome, sweet, rich and excellent.

New American—Equal to *Downing's* in all respects and a much hardier tree. Vigorous grower; very productive; the best variety for fruit; ripe from middle June to middle September.

Russian—Very hardy; vigorous grower; valuable for feeding silkworms, etc. Fruit of small size varies in color from white to black. Largely planted for hedges, windbreaks, etc., in Western States.

ASPARAGUS

See that the ground is well drained, naturally or otherwise; work it up fine and deep and make it very rich with well-rotted barnyard manure. Place the plants eight inches apart in rows four feet apart. Spread out the roots in a trench made deep enough to permit their crown to be covered with three or four inches of mellow earth. Give the bed liberal dressings of manure at intervals, and three pounds of salt per square yard early every spring. Do not cut for use until second season.

Conover's Colossal—This variety is much superior in size and quality to any of the old common sorts, being remarkably tender and fine flavored.

Palmetto—Until recently we believed that the *Conover's Colossal* was the best sort known, but we are now forced to concede that the *Palmetto* is earlier and a better yielder, and more even and regular in its growth, and that it will eventually supersede the old favorite. It has been tested both North and South and has proven entirely successful.

RHUBARB OR PIE PLANT

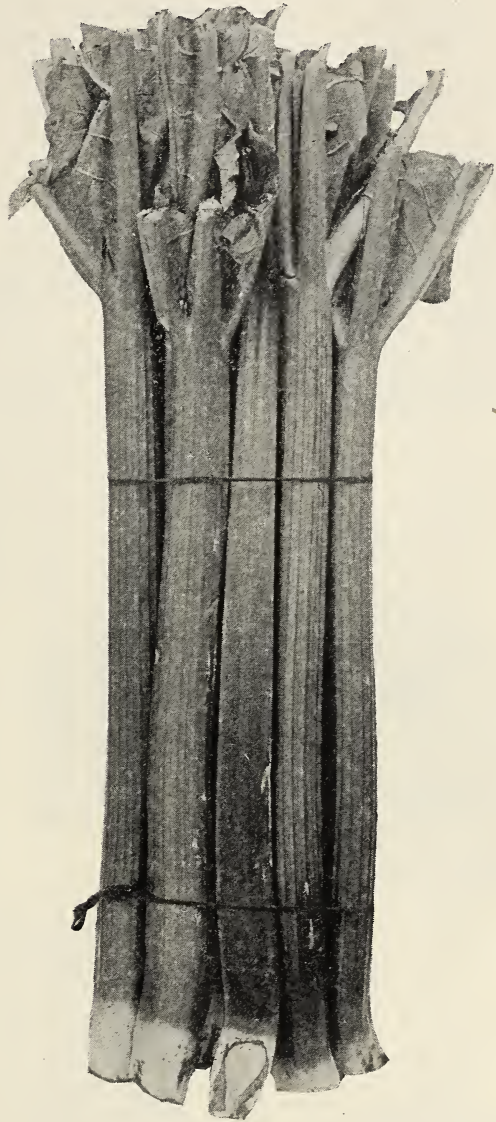
Make the ground rich and deep as recommended for Asparagus. Plant four feet apart each way.

Early Scarlet—Smaller than Myatt's, but extremely early and of very highest quality. The best extra early sort for home or market.

Myatt's Linnaeus—Those who have never grown this variety, which is of superior quality, will hardly recognize the old "Pie Plant." It is an early tender variety without being in the least tough or stringy, with a mild, sub-acid flavor.

RHUBARB

Victoria—One of the most desirable varieties now on the market. Tender and delicious for either market or home use.



RHUBARB

We are the only nursery in the United States carrying on scientific bud selection work.

Our varieties of Peonies are the best.

Nut Trees

The Japan Walnut It is a well-known fact that our native nuts do not take kindly to transplanting from nursery row. The black walnut, hickory nut, the butternut; all require a combination of good care, plus good luck if they are to grow and prosper. Fortunately, the Japan Walnut solves all difficulty and possesses the great characteristic in a nut of being very delicious—an abundant bearer, and exceptionally hardy.

We believe the Japan Walnut is one of the most valuable species of nuts and should be planted by every home owner. It grows with great vigor and is one of the best trees for ornamental purposes and shade, requiring no particular pruning or care.

On the average they begin to bear when they are about three or four years old. They bear the nuts in clusters—bear annually and it will not require a large number to provide all the nuts necessary for family use.

The flavor is something similar to the butter-nut and yet different. The shell is harder than the English Walnut.

We strongly advise that this variety be planted about every home.



JAPAN WALNUT

This cut shows what a beautiful ornamental tree the Japan Walnut is.

Butternut—This is a large nut-bearing tree. Makes handsome specimen tree for any purpose. Nuts the most delicious of all nut-bearing trees.

Chestnut, American Sweet—A valuable native tree, both useful and ornamental; timber is very durable and possesses a fine grain for oil finish. Nuts sweet, of delicate flavor and are a valuable article of commerce. Best adapted for sandy or gravelly soil.

English Filbert—Of easy culture, growing 6 to 8 feet high, entirely hardy and one of the most profitable and satisfactory nuts to grow. Succeeding in almost any soil, bearing early and abundantly; nuts nearly round rich and of excellent flavor. Admired for dessert.

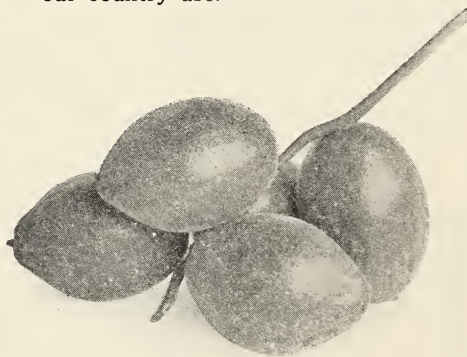
Pecan—This is a native nut belonging to the (Carya) Hickory Nut family. The tree is of tall growth and bears abun-

dantly. The shell is very thin, the kernel sweet and delicious.

Walnut, Black—This is the most valuable of all of our timber trees for planting; a rapid grower, producing a large nut. The timber enters more largely into the manufacture of furniture and cabinet ware than almost any other, and is prized almost with mahogany.

Walnut, English—The well-known English walnut of commerce. Hardy as far north as New York. Makes a handsome, spreading tree. Nuts are delicious. Not so hardy as the Japan walnut.

Walnut, Japan (Siebold's Japan)—A most valuable species, which on account of its hardiness and vigorous growth is well adapted for our country. It grows with great vigor and is one of the best shaped trees for ornament and shade, without particular pruning or care. One of the most valuable of any nut for our country use.



JAPAN WALNUTS—Very much reduced

This cut shows a cluster of Japanese Walnuts. They are actually much larger and very delicious.

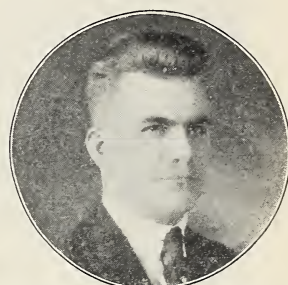
Architects and Designers in
Landscape Department
Greening Nursery Co.



CHAS. M. ANSPACH
Chief Artist and Designer



CHAS. E. GREENING
President
The Greening Nursery Co.
Consulting Architect



HERMAN A. KOLLMYER
Artist and Designer



RAY E. BASSETT
Landscape Architect



C. E. PICKRELL
Landscape Architect



T. CLIFTON SHEPHERD, JR.
Landscape Architect



J. W. GOEDKOOP
Artist and Designer



HRAND HAMPIKIAN
Artist and Designer



A COOL RETREAT

Landscape Department

Landscape art is the Highest Art in the Program of Beautifying the Homes of Men. In brief: It comprises the proper arrangement upon a given area of trees and plants that their beauty of foliage and of flower shall properly adorn their environment. It is the least expensive and most beautiful of all arts. Properly used, it converts unsightly spots into places of artistic beauty, pleasing to the eye and restful to the mind.

TODAY, the art and science of landscape gardening is of great importance to every land-owner, it matters not whether the property be a small city or suburban lot, a vast estate or the farm. Home surroundings can be vastly improved and values greatly enhanced by judicious expenditure in landscape work. There is no one feature that more fully indicates the home of refinement than the surroundings of the dwelling.

The practical man fully realizes all this, and that if he improves his property with trees and shrubs—to satisfy his longing for beautiful home surroundings—he has increased its value fully 50 percent besides leaving a rich heritage to his family for generations to come.

Not only does the owner receive unbounded happiness and pleasure, but every passer-by shares in it. Home-owners, who beautify their grounds are public benefactors because the city beautiful only comes from individual effort. Thus cities make communities and communities make the nation. Therefore the development of the home is more than a local matter—it is a matter of national concern.

Among all countries the United States ranks first in what may be termed "A home-owning Nation."

And while in certain newer portions of our country the homes have not been beautified as yet, still the appreciation of the Art and Science of Landscape Gardening is growing, and the benefits to be derived from this great art are beginning to be realized.

A friend once remarked that the best evidence of civilization was the care given the cemeteries in different portions of the country and that he invariably rated communities by their care of the local cemetery!

The same may be considered true as regards our homes. You naturally judge a man on seeing him for the first time by his dress—his personal appearance—and we believe it to be a fact that the character of the home-owner may be judged, even more surely, by a brief once over of his premises.

A house may be humble and yet the grounds about it may be the last word in planting—success in the planting not always meaning money, but loving care and an appreciation of what and where to place the tree, or shrub or flower.

In these days a modern dwelling costs much money and a great deal of this cost is incurred for beauty's sake. But it is regrettable that many who are particular about the finish of a house in its interior appointments are indifferent to its surroundings.

As a matter of fact nearly one half of the money we spend on our houses is for interior beauty. A timely question is, at what point should we cease our expenditures for decorative improvements, and having spent fifty percent extra on the house itself, would you consider a total of five percent on the grounds about the house to be extravagant?

Do you not know that this small expenditure for landscape improvement, is the only investment you could make, in or about your home, that continues to appreciate?

Do you not realize, that the house in its appointments, begin to deteriorate from the moment it is finished and the furniture installed?

Do you not know that the same sun and the same rain that causes the house to deteriorate, are your trees, your shrubs and your perennials best friends?

Mention was made above that success in planting depends on a knowledge of what to use and where to plant the tree, shrub or flower.

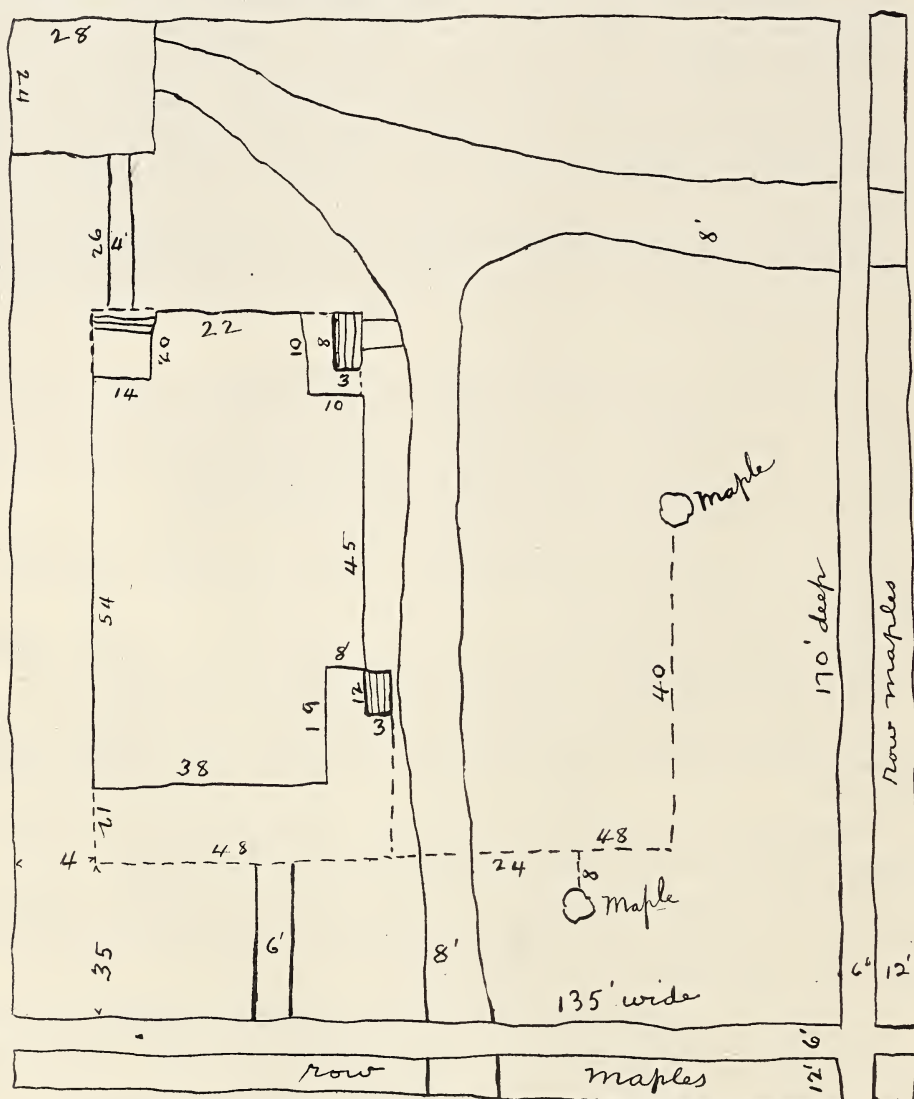
As only a small investment is needed, stock for the proper planting about the house is the least expensive requirement and is the most beautiful and most admired part of a complete home.

At small cost it converts unsightly places into artistic settings, pleasing to the eye and restful to the mind. In towns it is an aid to Civic Betterment and proves the owner to be a man who is not ashamed of his home, his country and is willing to do his bit for "An America More Beautiful."

WE ARE PIONEERS OF LANDSCAPE DEVELOPMENT IN THE MIDDLE WEST

Over twenty-five years ago Mr. Chas. E. Greening, President of The Greening Nursery Company, begun a Department devoted to landscape architecture. From its inception skilled service to our patrons was insisted on, therefore, from the beginning only Landscape Architects of highest qualifications and professional standing were chosen as associates.

This Department was inaugurated for the purpose of selling stock correctly. It is this way: Our business is largely done thru salesmen and ninety nine percent of nursery salesmen do not understand the proper arrangement of shrubs and trees and flowers for landscape work.

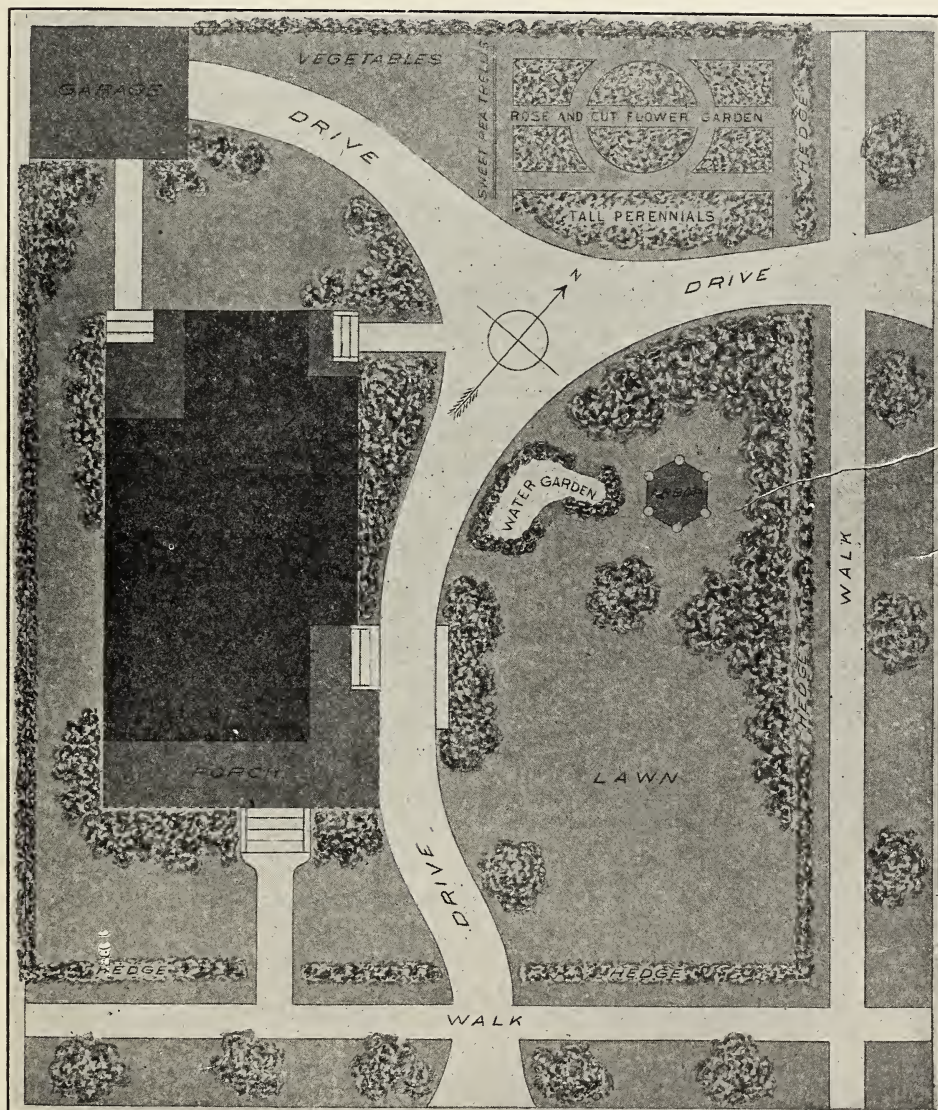


ROUGH SKETCH SENT US BY CUSTOMER FOR SMALL LANDSCAPE JOB

It requires a life time of study, therefore, we would rather this Department submit designs for all plantings of homes, whether new or old, than to leave it to the ability of our salesmen, who may be honest in their intentions, yet do not have the necessary experience to properly design a landscape layout.

Each and every one of our salesmen is entitled to the services of this Department and we trust our prospects and customers will insist on receiving the benefit of this service.

The men in our Landscape Department have made it a study and we



BLUEPRINT MADE BY OUR LANDSCAPE DEPARTMENT FROM THE SKETCH
SENT US SHOWN ON PRECEDING PAGE

have draftsmen who carry out the ideas of our Chief Designers. This gives every customer whose planting runs from \$50 to \$100, use of this Department free of charge, providing the stock is bought from us.

Should your home or estate be more elaborate and the conditions about such that you could not take measurements, secure data, etc. we would be pleased to send a man fully qualified to lay out the grounds properly at a very reasonable cost.

We would be glad to hear from all home owners who desire this service, assuring them that they will be equally pleased with the result of our layout, specifications, and design, as are they whose letters we print on pages 108-109 regarding the work of this Department.

We have also reproduced in half tone, photographs taken of recent plantings, showing before and after on pages 112-114, to which we refer you. By studying these reproductions you can best realize how quickly and thoroughly our Landscape Department can solve the making of a house into a real home. Please refer to the pages named above and thoroughly study the changes made by proper selection of stock and the right planting of same.

On this page we mentioned that we would furnish a colored sketch free of charge for any home, providing the stock necessary for planting the same did not exceed \$100.00. This service of our Landscape Department is being taken advantage of more and more as home-owners learn how small the expenditure is that is required for a proper planting.

Let us assume that you wish to beautify your home grounds, but you are at a loss to know just what to plant, where to plant, or just when and how. One of our clients sent in the sketch shown on page 104. This is a very simple thing to do, but the measurements should be exact.

Now from the sketch shown our Landscape Department made a blue-print or plan for the grounds. We show this completed plan on page 105. In addition to this we furnish a planting key, showing where to locate each tree, shrub, vine, etc., and indicate the distance apart for each variety. *Profile Sheets*, the name we have given to the sheet prepared for this purpose, will be sent you free of charge, on which you can draw the sketch similar to the one shown on page 104 and answer the questions essential to our getting the right data, which we show on page 107.

If you are interested in beautifying your home speak to our salesman about this service, or ask us for *Profile Sheet*, and we will send you complete instructions how you are to proceed by return mail.

The Data Required by Our Landscape Department to Prepare Plans to Beautify Your Home

Important Information The necessary data to be sent in with a sketch is found by us in your answers to the following questions. These are on the Profile Sheet we send you if you write for information:

Owner's name ----- Business -----
 City ----- State -----
 Street and number ----- Rural route -----
 Street paved? ----- How? -----
 Public or private property? ----- Water service? -----
 City or country? ----- Spring or fall planting? -----
 Kind of soil ----- Subsoil -----
 House constructed of ----- Cost about -----
 Style of architecture ----- Color of home -----
 Elaborate or moderate job wanted? ----- Estimate cost of planting job -----
 State style of planting wanted, whether formal or informal -----

Locate all buildings, showing distance from each other and from all property lines.

Locate all entrances, showing number of steps.

Locate coal and laundry windows, also cellar doorways.

Locate walks, stating width and how constructed.

Locate drives, stating width and how constructed.

Locate existing trees and shrubs, naming kinds if possible.

Locate existing fences and hedges.

Locate any terraces or slopes.

Indicate objectionable outlooks.

Give dimensions of property.

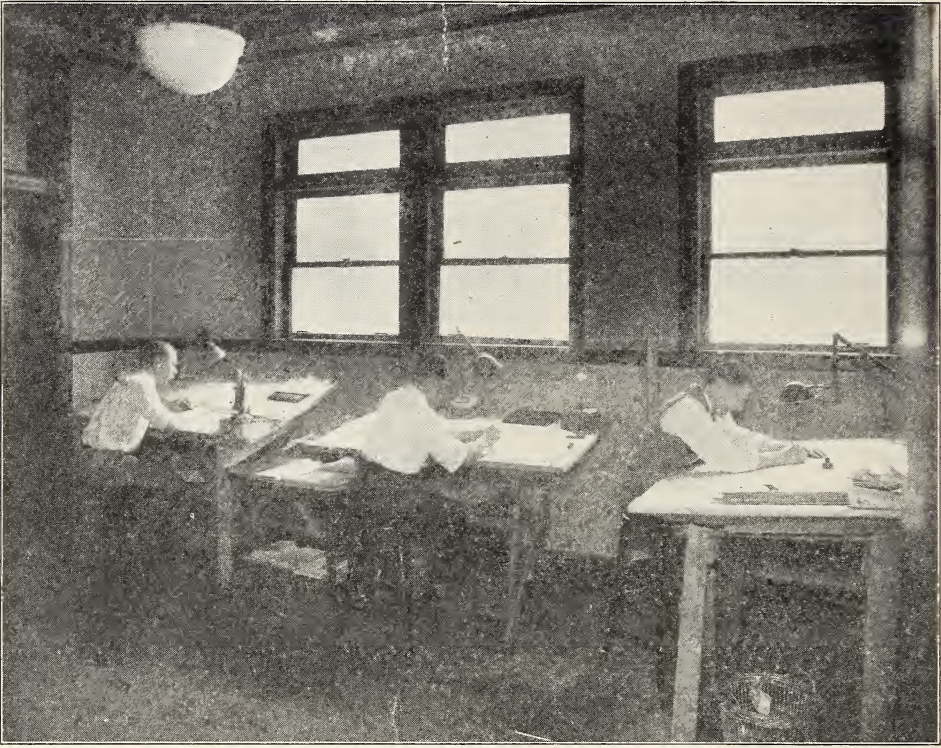
Indicate views to be retained.

Give dimensions of buildings.

Indicate points of compass.

Give us some suggestions.

Make a sketch of property on this Profile Sheet, using a scale of 8 or 16 feet to the inch. The larger the sketch the better. On large properties, especially parks and cemeteries, we will send an engineer to take measurements and make topographical surveys, if required, charging merely for the time and expenses involved. Send photographs if possible.



The illustration above is a corner in our Landscape Department. It is well-known among the nursery trade that we have the largest Landscape Department in the United States in connection with any nursery. We are prepared to handle any jobs—large or small—Have special Service Department for small jobs.

Much pleased with the Trinity of service given clients by the Landscape Department of The Greening Nursery Company

*The Greening Nursery Co.,
Monroe, Mich.*

Jackson, O., July 19, 1920.

Attention—Mr. Shepherd

Dear Sirs:

It may please you to know that your planting in our gardens is coming along fine, and we are surprised and gratified, for we had no idea that the results would show so early the first year.

The gardens are really beautiful and you should have views now giving you a faint idea of the physical picture produced.

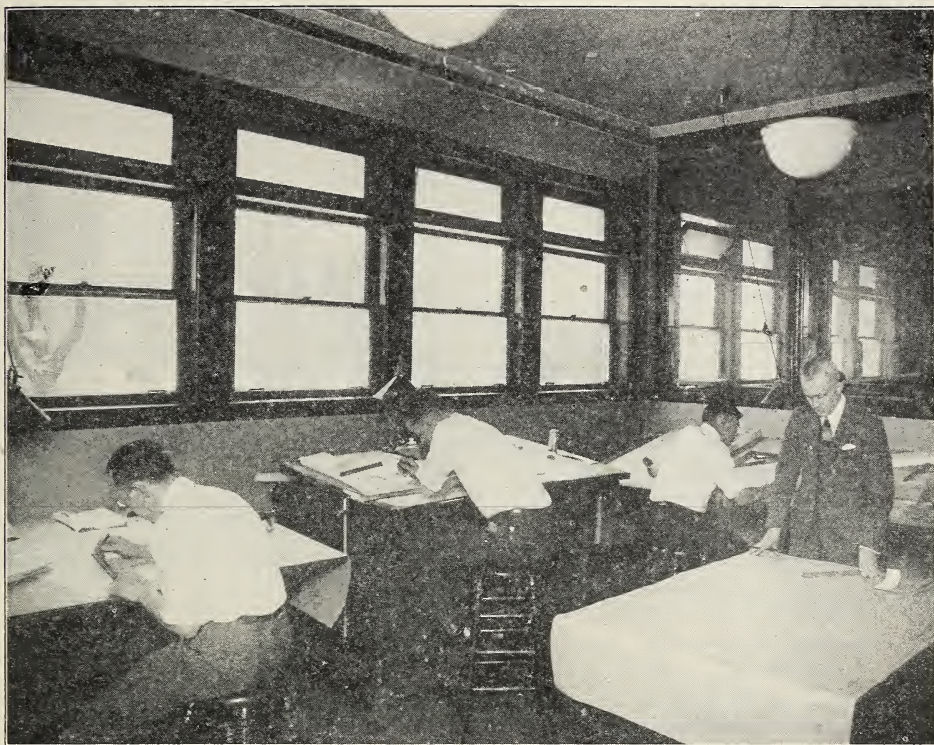
The landscape designing, the setting of evergreens, shrubbery, perennials and roses, show a truly artistic spirit, guided perhaps by experience, and you as well as ourselves are to be congratulated on producing one of the most beautiful small garden scenes in America. I trust you will run down soon and see for yourself. Assuring you of my high appreciation of your services rendered, I am,

Yours very truly,

JOHN E. JONES

*FROM MR. FRED B. WOODARD, July 1920
President Woodard Furniture Co.,
Owosso, Mich.*

Gentlemen:—I am pleased to report that the fifteen hundred shrubs which you furnished me have grown beautifully. They have been planted only a year and three months, but have made wonderful development. This border of shrubbery was designed and the planting overseen by your Mr. Shepherd and we cannot speak too highly of his work. It is one of the most satisfactory purchases I have ever made.



The one below is another view of our Landscape Department in a room adjoining that shown above. These men are busily engaged in making lay outs for the beautification of home-grounds, as per our booklet on *BETTER HOMES*, which will give you a clearer idea of our facilities in this regard than we have room to explain here.

LANDSCAPE WORK COMPRISING OVER 20,000 TREES AND PLANTS

Benton Harbor, Mich., June 27, 1908

We are pleased to inform you that the plans and specifications furnished by you for our 25-acre House of David Park, also the nursery stock you furnished for same, have proven most satisfactory.

We appreciate the artistic efforts of landscape architecture you have created on our grounds, and feel grateful for the care and attention you have given our work. Your comprehensive instructions, plans and specifications made it possible for us to do all our own planting without difficulty.

Yours truly,
ISRAELITE HOUSE OF DAVID
Per M. S. Tyler, Pres.

GRINNELL BROS.
Michigan's Leading Music House
Detroit, Mich.

July 24, 1920

Greening Nursery Co.,
Monroe, Mich.

Attention—Mr. Shepherd

Gentlemen:—

I wish you to know that the landscape work you did for me two years ago is very satisfactory. Your selection and artistic arrangement of shrubs and flowers gives a continuous bloom from early spring until late fall. The trees, shrubs and flowers have made a wonderful growth and are in excellent condition. I appreciate the splendid service you have given me and am very grateful to you.

Yours sincerely,
A. A. GRINNELL



BUNGALOW (5-BH)

Regarding the planting about the cozy home above, Mr. Shepherd has this to say: "A setting worth while and appropriate, which adds to the coziness of this bungalow home. Note how effectively the house is blended into its resting-place by the breaking of the angle at the intersection of house and ground. This same effect can be produced by the use of the following stock: No. 1, *Lonicera Tatarica* Rosea; No. 2, *Berberis Thunbergi*; No. 3, *Spirea Van Houttei*; No. 4, *Diervilla Florida* Rosea; No. 5, *Climbing Rose*, *Crimson Rambler* or *Dorothy Perkins*; No. 6, *Philadelphus Lemoinei*; No. 7, *Philadelphus Coronarius*; No. 8, *Berberis Thunbergi*; No. 9 is *Spirea Van Houttei* and No. 10 is *Cydonia Japonica*."



No. 13 (BH)

This planting is very simple and in good taste. The vines on the porch are *Ampelopsis Veitchi*, or *Boston Ivy*, and those at the right bearing the tiny white flowers are *Clematis Paniculata*. The border is *Berberis Thunbergi*. Note how graceful in form when let grow naturally without shearing. The early fall coloring of the vines and barberry will be very striking by its brilliancy, followed by the scarlet berries of the barberry and black berries of the *Boston Ivy* and the white fluffy seed pods of the *Clematis*.



No. 20 (BH)

*An ideal planting before an ordinary house. It is incomplete, however, and we suggest continuing the planting around the foundation at the right of the picture to the far side of the bay window, terminating midway between the house and tree with three shrubs, using either *Lonicera Tar, Rosea, Philadelphus Coronarius* or *Grandiflorus, Diervilla Rosea* or *Spirea Van Houttei* planted in triangular form with point to the front.*



No. 6 (BH)

*An excellent planting for fall color effect. No. 1 is *Hydrangea Paniculata Grandiflora*; No. 2 is *Berberis Thunbergi*, and No. 3 is *Ampelopsis Veitchi*, or Boston Ivy.*



51-A—BEFORE PLANTING

**Mr. Home-
Owner:**

Perhaps we can best impress on your mind how quickly and thoroughly our Landscape Department can solve the making of a house into a real home by showing a photograph taken of the home of Mr. F. W. Ruggles, formerly President of the Republic Truck Company, Alma, Mich. The view 51-A, Before Planting, will give you an idea of house and grounds immediately after the house was finished.

Our Landscape Department took the work in charge and the photograph below was taken ten weeks after the one above. For a better view of Mr. Ruggles' home and the condition of growth in 1920, we refer you to our "The Home Beautiful," which also contains much other interesting matter relative to the beautification of homes and grounds. Our salesmen can show this book or we can send by mail post paid for \$5.00.



51-F—TEN WEEKS LATER



No. 1. Showing condition of Irving Park, Battle Creek, Michigan, in April 1919. Note the contrast between cut No. 1 and cut No. 2 beneath.

The site of Irving Park was originally a swail—a swamp—within the incorporated limits of Battle Creek, Michigan. Debris for years had been dumped therein. It was an eye-sore to the citizens and visitors wondered why it was not abolished. The Landscape Department of our Company under the personal direction of Mr. Shepherd solved the problem happily. From a bleak and bare spot, excessively hot in summer and exceedingly cold in the winter, Irving Park is now a delight instead of a nightmare. Other reproductions of scenes in Irving Park are shown on page 114.



No. 2. Same scene as No. 1, except taken three years later,—July 1922. Designed and planted by our Landscape Department.



No. 1. Reproduction of photograph taken in Irving Park, Battle Creek, Michigan in July 1920 immediately after stock was planted.

The Landscape Department of the Greening Nursery Co., under the direction of Mr. T. Clifton Shepherd, planned and planted this park. Possibly you have seen it and know how a bog used as a dumping ground was transformed into a thing of beauty.



No. 2. Here is a cut from photo taken at practically the same place as No. 1 on same page but just two years later—i. e. in July 1922. Designed and planted by our Landscape Department.

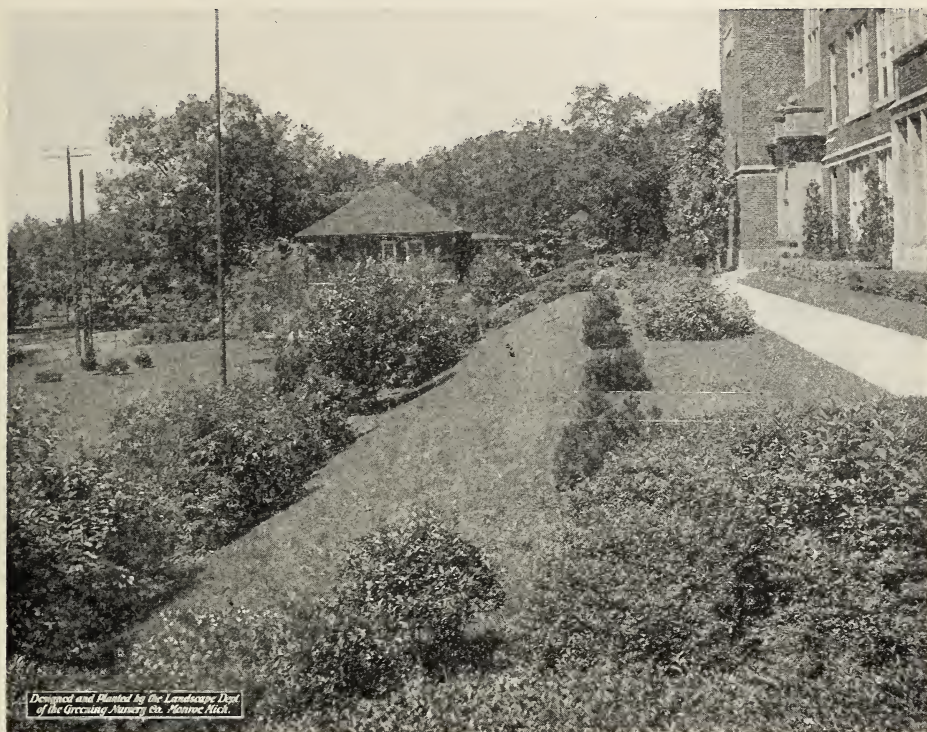


Plate 3.

A WEALTH OF BEAUTY

JACKSON INTERMEDIATE SCHOOL

Who can put a price on the value of this school landscape development? The picture shows a side view taken from the top of a hill looking down towards the street. The expedient was used of planting carefully selected flowers, shrubs, dwarf trees, evergreens, etc., to relieve the steepness of the hill side and give beauty and character to the magnificent structure. This view shows only a small section of the grounds. The play grounds are in the rear. Thousands of shrubs, flowers and trees are planted on the Botanical Garden idea plan, representing a wonderful educational feature in the study of trees and plants for teachers and pupils to gather on the lawn, text book in hand, studying the beauty of foliage and flower and the gradual development of the many varieties of trees and plants arranged in an artistic and orderly manner, a pleasure and delight to students and teachers.

BEAUTIFYING THE GROUNDS ABOUT SCHOOLS CHURCHES AND OTHER PUBLIC BUILDINGS

The grounds about many public buildings have been beautified during the past twenty years.

It has been our good fortune to have been entrusted with much of this work. Our experience in this line should be an asset to any community that may wish to properly plant the grounds about their public buildings. We are showing in the next few pages a reproduction or two of photographs recently taken of schools we have designed and furnished the stock for.

These plantings have been made under our direction and if the matter of beautification is considered before the buildings are erected, we can make suggestions as regard layouts and proper placing of buildings that will in after years prove desirable.

We have just published a booklet on "The Relation of Landscape Architecture to the Public Schools," an address before the National Convention of School Officials delivered before this Convention, at their request by our Mr. Chas. E. Greening in Detroit in June 1921.

We would be pleased to send this booklet free of charge to School Superintendents, Principals and Members of Boards of Education and others who are interested.



Plate 1.

EAST INTERMEDIATE SCHOOL—JACKSON, MICH.

The treatment of these school grounds was considered a problem for reasons of its high elevation and pronounced declivity. The school building is located 130 feet from the street line on an elevation of 25 feet above the level of the sidewalk in the street. The problem was happily solved by building two grass terraces and relieving the appearance of the steep hill and effects of the terraces by means of careful landscape planting of shrubs, trees, evergreens, hedges, etc., producing a landscape effect claimed to be the most beautiful of any school ground in the state. The landscape development of these show a result of three years from the time of planting.

This booklet is replete with reproductions of photographs made from plantings designed and stock furnished by us thruout the middle west and contains many letters from School Boards and others.

We shall be pleased to go into detail regarding what can be done with your schools, or other public buildings, such as Churches, Court Houses, etc., if you are interested.

COUNTRY CLUBS, GOLF COURSES, PARKS AND CEMETERIES

As a country grows older, richer and more densely populated increased attention is given to the installation of parks as places of recreation, and breathing spots for congested population.

Country Clubs, too, are established which afford the busy business man a place to get out into the open; with Golf, Tennis and other outdoor games to afford recreation.

It requires experience to properly lay out Parks, Country Clubs and Golf Courses. We are pleased to say that many of these can be placed to our credit, and we shall be glad to go into detail before any Committee regarding our experience in this line, and solicit information relating to any new projects of this nature from any Association or interested citizen who may desire information.

A Marsh—A Bog—A Cat-Tail Swamp

Made Into a Park of Surpassing Beauty by the Landscape Department of The Greening Nursery Company

CITY OF BATTLE CREEK, MICHIGAN

Office of the Clerk

November 17th, 1920.

The Greening Nursery Co.,
Monroe, Michigan.

Gentlemen:

It is with the greatest pleasure that I take this opportunity to express our complete satisfaction with the results that have been accomplished in the planting of our Irving Park. Through the efforts of your Mr. T. C. Shepherd, Jr., this stretch of waste-land, swamp and marsh has been transformed into a wonderful stretch of beautiful vistas and magnificent shaded bowers.

Too much cannot be said for the wonderful hardy stock that has been furnished by the Greening Nursery Company, for despite the diversified soil, which varied from boggy swamp land to loose gravelly sand—it has been necessary to replace but a handful of the hundreds of thousands of specimens that have been planted in making this one of the most beautiful parks in the country. After but two years' growth, the shrubs and trees give the appearance of having been planted for so long a time that visitors who are not conversant with the short time that has been devoted to the planting of this Park positively refuse to believe that such a growth could be obtained in so short a time. Many guests at the Sanitarium who have returned after an interval of two or three years cannot but marvel at the wonderful transformation that has taken place since they last saw the swamp and cat-tail marsh.

To Mr. T. C. Shepherd, Jr., who designed and landscaped the park, must be given the lion's share of the credit for this transformation. Not only did Mr. Shepherd plan the details and supervise the planting personally, but it is entirely due to his ingenious engineering that the drainage problem has been taken care of and the park made possible.

Mention should also be made of the fact that the spring plantings have continued until July, despite the fact that this has been deemed an impossibility heretofore. Under Mr. Shepherd's personal direction this was accomplished with the loss of no stock whatsoever.

In closing, I can only reiterate that with the stock from the Greening Nursery and with Mr. Shepherd's artistic skill to plant the same to the best advantage, there can be no question of the results derived.

Assuring you that it has been a pleasure indeed to have had the privilege of your co-operation in the development of this Park, I am,

Sincerely,

HARRY K. ALLWARDT,
Commissioner of Buildings and Grounds.



PICEA PUNGENS KOSTERIANA
(Koster's Blue Spruce)

Evergreens and Conifers

THE landscape gardener is no longer content to use evergreens in quantity merely for specimen trees, shelter-belts, screens and hedges, but as new beauties are being continually discovered in them, new uses develop also. They form perfect backgrounds for the flowering plants and shrubs of early spring, for the berries of autumn and as a tracery for the bright barks and twigs of winter. Beautiful beds of permanent color can be formed by growing together sorts of

moderate growth, with contrasting foliage of which there are the golden, the silver-hues, and the many shades and tints of green. Few trees or plants give so much cheer and add so much attractiveness to the winter landscape as do the pines, the spruce, the arbor vitae and the many other varieties of evergreens.

Many varieties, such as arbor vitae, respond readily to severe pruning—in fact, they may be trimmed into almost any desired shape or form. For this reason they are often used in trimmed hedges and for fanciful figures in the formal garden.

Greening's Evergreens are all carefully grown, at good distances for symmetrical development, and are root and top-pruned into handsome, shapely specimens that will transplant successfully to new homes with only ordinary care. Contrary to a rather prevalent belief, most evergreens are easily transplanted. We pack them so that the root fibres are well protected and will reach their destination in good growing condition. If planters will continue this care to keep the roots from drying out from exposure to the air and sun until the stock is planted, its successful growth is reasonably assured.

In planting evergreens, dig a large enough hole to take in all the roots and the soil which was shipped with the roots. After planting, soak the ground around the tree thoroughly with water and apply a covering of good straw manure to retain the moisture around the tree. Shade the tree with paper or burlap for the first two or three weeks so that the hot sun may not strike the tree directly until it has had a chance to start growing.

Let it be understood that evergreens come in a great variety of sizes and shapes. There are tall slim specimens as well as short stocky trees. No two trees, of course, can be exact counterparts, although it is always easy to select two trees which compare well with one another and which might be called a pair.

The price of evergreen trees is graduated according to height and spread. Customers intending to purchase evergreens in considerable numbers will please us by coming right to the nurseries and selecting the trees. The trees may be tagged right in the block where they grow and will be dug and shipped without the tags being removed.

We will ship no evergreens without a BALL OF EARTH, unless otherwise specified.



THUYA OCCIDENTALIS

Fine specimens in our block of Thuya Occidentalis (American Arbor Vitae). This beautiful native tree commonly known as White Cedar is especially valuable as screens, hedges and often used to give distinction to the entrance of old Colonial homes.

EVERGREENS AND CONIFERS (Continued)

ABIES—Fir

- A. balsamea* (Balsam Fir)—A very erect regular, pyramidal tree, with dark green sombre foliage. Grows rapidly and is very hardy.
- A. concolor* (Silver Fir of Colorado)—Without doubt the finest of the Rocky Mountain evergreens. Tree of graceful habit; broad, handsome foliage, bluish above, silvery beneath. A grand tree.

BIOTA—Chinese Arbor Vitae

- B. orientalis* (Chinese Arbor Vitae)—Bushy and upright in growth and very attractive; foliage arranged in flat, vertical leaves.

JUNIPERUS—Juniper

- J. chinensis* (Chinese Juniper)—A handsome, dense shrub with dark green foliage and somewhat drooping branches.
- J. chinensis aurea* (Golden Chinese Juniper)—One of the finest evergreens. Of spreading habit and with beautiful gold-marked foliage.
- J. chinensis foemina*—Very decorative, upright, pyramidal bush, with rather spreading branches; more slender than the type.
- J. chinensis mascula*—Tall, upright, pyramidal, deep green, good for formal plantings, house corners, windbreaks and Japanese plantings.



Above is shown an Abies Concolor commonly known as the Silver Fir of Colorado, which is without doubt the finest of the Evergreens found in the Rocky Mountain plateau. The foliage is bluish above, silvery beneath and it thrives anywhere.



AN EVERGREEN PLANTING

EVERGREENS AND CONIFERS (Continued)

- J. chinensis neaboriensis*—Foliage closely set and rigid, making the bush quite prickly. The rich, glaucous color is fine in summer; pyramidal; dense habit.
- J. chinensis pfizeriana*—A very hardy, valuable, spreading variety, with silvery green color. Both the main stems and lateral shoots have a light, feathery appearance. The leaves have two prominent white lines on the under side.
- J. chinensis procumbens*—A trailing form

of *Chinensis*, particularly well adapted for covering banks and for bordering.

- J. chinensis recurva*—Shrub or small evergreen tree with spreading and recurving branches. Fine foliage.
- J. communis* (English Juniper)—Low-growing bush, sometimes of prostrate habit; light glaucous foliage arranged at right angles to branch separately.
- J. communis var. aurea* (Douglas' Golden Juniper)—Of spreading growth, with bright golden foliage throughout the year; a distinct and charming variety.
- J. var. hibernica* (Irish Juniper)—A distinct and beautiful variety, of erect, dense, conical outline, resembling a pillar of green; very desirable.
- J. var. suecica* (Swedish Juniper)—A small-sized, handsome, pyramidal tree, with yellowish-green foliage. It is quite hardy.
- J. var. glauca* (Glaucous Cedar)—The compact, conical habit of this variety, combined with its silvery-bluish foliage, render it very distinct and desirable.
- J. excelsa stricta*—A very symmetrical, conical outline. Foliage glaucous and arranged around the branch in threes, dense and prickly.
- J. japonica*—Very solid, green foliage; oblique, spreading habit; worth a good place on a slope.
- J. japonica aurea*—Small, splendid golden, scaly leaves closely adpressed to branchlets, giving a consistent color throughout the spreading bush, which is distinct and attractive.



JUNIPERUS CHINENSIS PFIZERIANA

One of the most desirable of the Junipers in every way. The foliage is feathery and attractive, the color a beautiful silvery green.



The *Picea canadensis alba* or White Spruce is very hardy, valuable and as you see by the illustration above, beautiful too. With its silvery foliage it adds contrast in a planting of Evergreens of darker greens and blues and should be fully considered.

EVERGREENS AND CONIFERS (Continued)

Juniperus scopulorum (Hill's Silver Juniper)—Beautiful silvery blue color. Narrow compact and symmetrical. It has one single stem in contrast to some varieties of Junipers with several stems. This makes it safe from heavy snows and wind. The inner foliage does not turn brown.

J. japonica spherica—A tall upright pyramidal, green foliage. Good for wind-breaks, hedges, individual specimens, Japanese gardens and backgrounds.

J. Sabina (Savin Juniper)—A dwarf, spreading shrub, with trailing branches. Thrives in the poorest soils. Very suitable for rockwork.

J. Sabina fastigiata—Erect shrub, of columnar habit, with dark green leaves.

J. Sabina prostrata—Dull green leaves. Grows rapidly and makes a very pleasing effect when planted on terraces; also used for covering rocks and bare, sunny positions.



Note the young Koster's Blue Spruce in foreground—that the banking is *Deutzia* and *Spirea* in full bloom.



Above is shown an effective foundation planting of Evergreens. This will be beautiful every month of the year.

EVERGREENS AND CONIFERS (Continued)

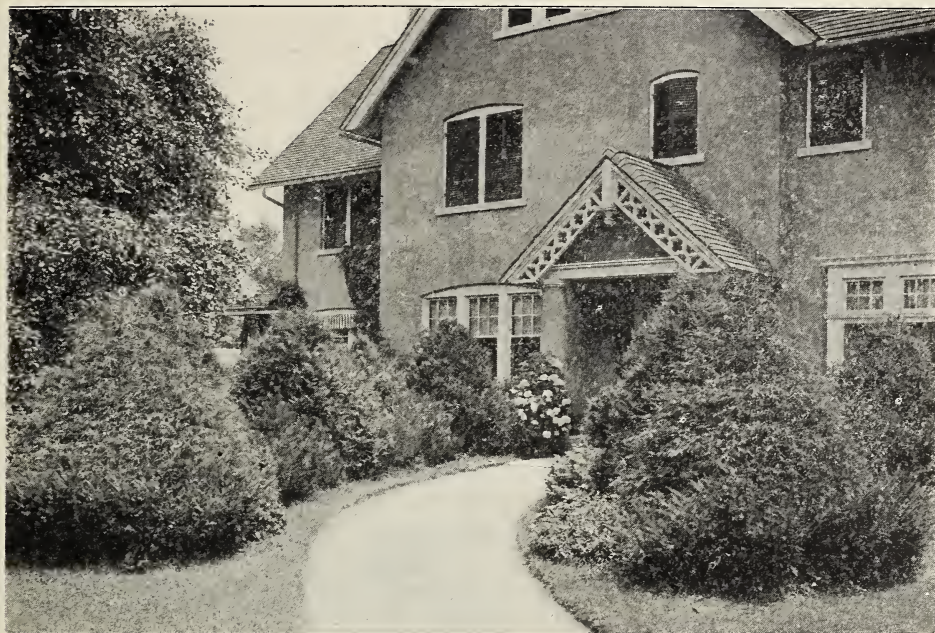
- J. Sabina tamariscifolia* (Gray-Carpet Juniper)—A distinct, trailing variety of Sabina. The needle-shaped leaves have a deceptive but pleasing shade of gray-green. Fine for edging.
- J. virginiana* (Red Cedar)—A well-known American tree; varies much in habit and color of foliage, some being quite stiff, regular and conical, and others loose and irregular. It makes a fine ornamental hedge plant.
- J. alba spica* (Variegated Red Cedar)—The same as the preceding, with branches of creamy white interspersed among the green.
- J. virginiana cannaertii*—A fine, pyramidal, compact grower of dark green appearance; some of the branches lengthen out and droop, thus presenting a novel and pretty picture.
- J. elegantissima* (Golden Cedar)—Forms a columnar tree, while the side branchlets curve over effectively. Beautiful golden brown foliage; effective in winter; very distinct.
- J. schottii*—A fine, hardy evergreen, of columnar habit; foliage light green and feathery.
- J. virginiana tripartita*—The rather prickly foliage is grayish; robust habit, forming a wide, irregular bush.

LARIX—Larch

- L. europaea* (European Larch)—An elegant, rapid and pyramidal-growing tree, with light green foliage; drooping habit; valuable as a lawn tree.
- L. laricina* (American Larch)—Similar to the European but is of a light bluish green color. Hardy and valuable. Very handsome in spring.

PICEA—Spruce

- P. canadensis* var. *alba* (White Spruce)—A native tree of medium size, of pyramidal form. Foliage silvery gray, and bark light colored. Very hardy and valuable.
- P. compacta* (Compact Norway Spruce)—One of the best of all evergreens. Foliage bright green, laying in upright layers, heavy and beautiful.
- P. Douglasii* (Douglas' Spruce)—From Colorado. Large conical form; branches spreading, horizontal; leaves light green above, glaucous below. A valuable evergreen tree.
- P. excelsa* (Norway Spruce)—From Europe. An elegant tree; extremely hardy, of lofty, rapid growth and pyramidal form. The branches assume a graceful, drooping habit when the tree attains 15 to 20 feet in height. One of the most popular evergreens for planting, either as single specimen trees, or in masses for effect or shelter. It is one of the best evergreen hedge plants.
- P. excelsa aurea* (Golden Norway Spruce)—Similar in habit to *P. excelsa* but the foliage is of golden yellow.
- P. Engelmannii*—Very ornamental as specimen. Forms a dense and narrow pyramid when young.
- P. nana compacta* (Dwarf Compact Norway Spruce)—A fine dwarf evergreen excellent for planting singly. Partakes of the nature of *Compacta* as described except not so tall growing and is not pyramidal.
- P. pungens glauca* (Colorado Blue Spruce)—One of the hardiest and most beautiful of all the spruces; in form and habit similar to the White Spruce; foliage of a rich blue or sage color.



We illustrate above a beautiful planting of Evergreens. The chiefest charm of an evergreen is in its all-the-year-round beauty. No month so drear and none too hot to dull their everlasting beauty.

EVERGREENS AND CONIFERS (Continued)

- P. pungens* (Colorado Green Spruce)—Of pyramidal growth. Bluish-green in color, rarely dull green. A very handsome and hardy tree of symmetrical habit.
- P. pungens glauca Kosteriana* (Koster's Blue Spruce)—Similar to the Colorado Blue Spruce, except that the foliage is a much brighter blue. Very rare.
- P. pendula inverta* (Weeping Norway Spruce)—Grotesquely pendulous; attractive from its novelty and unique habit. Grows 40 to 60 feet high and has larger and light green foliage.
- P. remonti*—A dwarf form, slightly inclined to fastigate shape; compact and hardy.

PINUS—Pine

- P. nigra Austriaca* (Austrian or Black Pine)—Tree remarkably robust, hardy and spreading; leaves long, stiff and dark green; growth rapid. The most valuable for this country.
- P. Cembra* (Swiss Stone Pine)—A handsome and distinct European species, of compact, conical form; foliage short and silvery. Grows slowly when young.
- P. montana* (Swiss Mountain Pine)—The dull green foliage is rather short but



In the foreground of the beautiful home above is a setting of *Pinus montana* Mughus commonly known as dwarf Mugho Pine. Its general form is that of an upright pine bush and is very effective, wherever a dwarf evergreen is needed.



The selection and setting of the Evergreens about the home shown above is artistic and effective. The grouping deserves special study. The Iris, Peonies, and other perennials give a touch of color to the view and are valuable for the contrast they afford.

EVERGREENS AND CONIFERS (Continued)

thick, arranged in pairs and seems to be crowded on the spreading branches. Very variable in habit, usually low, often prostrate. Ornamental when singly planted or covering rocky slopes.

P. montana Mughus (Dwarf Mugho Pine)—An upright, small pine. Its general form is that of a pine bush.

P. resinosa (Norway or Red Pine)—Very ornamental; quite hardy and of vigorous growth; the needles are lustrous green, long and most often in pairs, contrasted by the russet-colored stubby cones.

P. Strobus (White or Weymouth Pine)—The most ornamental of all our native pines; foliage light, delicate or silvery green. Flourishes in the poorest light sandy soil. Very valuable.

P. sylvestris (Scotch Pine or Fir)—A native of the British Islands. A fine, robust, rapid growing tree, with stout, erect shoots and silvery green foliage. Very hardy; valuable for shelter.

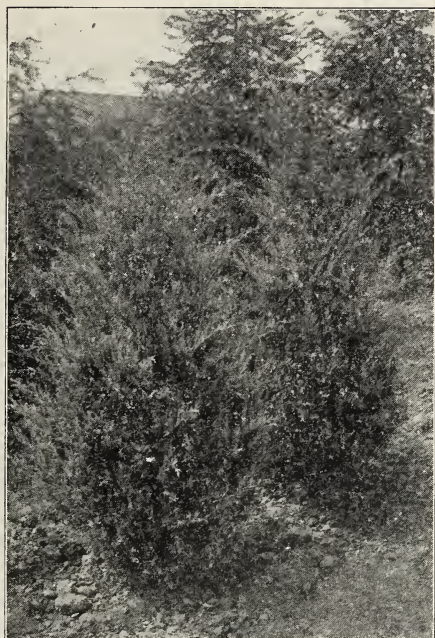
RETINISPORA—Japan Cypress

R. filifera (Thread-branched Japan Cypress)—A tree of very graceful ap-



PINUS AUSTRIACA

EVERGREENS AND CONIFERS (Continued)



PINUS MUGHUS

pearance with bright green foliage, slender, string-like and drooping. Very beautiful and ornamental.

R. var. aurea (Golden Thread-branched Japan Cypress)—A form of *Filifera*. Bright golden color. The best golden conifer known to us.

R. obtusa (Obtuse-leaved Japan Cypress)—Dark fern-like foliage; distinct and beautiful; habit drooping and graceful.

R. pisifera (Pea-fruited Japan Cypress)—An upright tree; foliage light green and feathery; the branches are somewhat pendulous at the ends.

R. var. aurea (Golden Pea-fruited Japan Cypress)—A fine pyramidal, bright golden form; popular and graceful.

R. pisifera plumosa (Plume-like Japan Cypress)—Useful for specimens or hedges; foliage light green and plume-like; extensively planted.

R. pisifera plumosa var. aurea (Golden Japan Cypress)—Golden form of *R. plumosa*.

R. pisifera squarrosa (Squarrose-leaved Japan Cypress)—Choice ornamental tree; Japan form, with steel-colored foliage, which is very fine and pretty.

TAXODIUM—Deciduous Cypress

T. distichum—A tall, pyramidal tree, hardy and very desirable for park planting. Foliage light green, feathery

against cinnamon bark. Its habit of growth gives it a very distinct appearance. Prefers moisture.

TAXUS—Yew

T. baccata (English Yew)—Dense growing, thick branched trees of medium height, foliage dark green, bright scarlet berries. Stands shearing.

T. baccata var. repandens—Spreading habit; hardy and distinct.

T. cuspidata (Japanese Yew)—Dense growing. One of the hardiest; habit spreading; foliage deep green.

T. cuspidata var. brevifolia—A form of the above with short, dark green leaves. A very handsome, hardy variety. Rare.

TSUGA—Hemlock

Tsuga canadensis (Hemlock)—A broadly pyramidal, medium-sized tree of dense growth, with rich green foliage. Branches thickly set, with more or less pendulous tendency, giving a particularly graceful effect to the whole. Choice as a single lawn tree or for hedge purposes, succeeding in all except particularly bleak situations.

THUJA (THUYA)

See Biota—Arbor Vitae

T. occidentalis (American Arbor Vitae)—A beautiful native tree commonly known as the White Cedar; especially valuable for screens and hedges.



COLORADO BLUE SPRUCE

EVERGREENS AND CONIFERS (Continued)

- T. occidentalis* var. *compacta*—Desirable for planting in tubs. Very compact in growth. Pyramidal and grows in perfect form without pruning. From 3 to 4 feet high. Leaves of light grayish green.
- T. occidentalis elegantissima* (Rollinson's Golden Arbor Vitae)—Distinct from other Eastern sorts. The upright, flat branches are held edgewise to the center of the tree. Their tips are bright yellow in summer, brown in winter. Very handsome. Half hardy.
- T. occidentalis Ellwangeriana* (Tom Thumb Arbor Vitae)—A heath-leaved dwarf variety. Grows in ball form and is well adapted to pruning in globular form. Beautiful for bordering drive-ways, walks and formal garden work.
- T. occidentalis globosa* (Globe Arbor Vitae)—A dense, light green evergreen of dwarf habit, grows naturally round like a ball. One of the best of the dwarf.
- T. occidentalis aurea Hoveyi* (Hovey's Golden Arbor Vitae)—Is a distinct, compact, hardy American seedling; dense and conical with light, golden green foliage.
- T. occidentalis aurea* (Geo. Peabody, Golden Arbor Vitae)—Same habit as *Occidentalis* except for the color, which is a beautiful bright golden yellow. Fine for specimen planting.
- T. occidentalis Douglasi*—A comparatively new variety chiefly valuable on account of its crested foliage, deep dark green in color. Will attain a height of fifteen feet.
- T. occidentalis pyramidalis* (Pyramidal Arbor Vitae)—A tall, slender column of dark green resembling Irish Juniper in growth, retains its color in the winter. Very hardy, will stand severe shearing.
- T. occidentalis Siberica* (Siberian Arbor Vitae)—This is one of the most useful and hardy evergreens for the northern states. Its excessive hardness, regular conical outline and peculiar dark, dense foliage makes it very popular for hedges or screens and is especially beautiful and more attractive than the other species.
- T. occidentalis vervaeneana* (Green)—Of compact, broad pyramidal habit and green foliage.
- T. occidentalis Wareana*—Dwarf habit and globular form. Foliage silvery tinged. Like *Globosa* in growth and adapted for grouping.
- T. occidentalis Warenana* var. *aurea*—Same habit as above except the color of foliage which is a good golden yellow.
- T. occidentalis Woodwardii*—One of the best globe forms of the *Thuja*s.
Note.—For Chinese Arbor Vitae refer to *Biota*.

EVERGREEN SHRUBS

BUXUS—Box

- B. sempervirens arborescens* (Tree Box)—A beautiful evergreen shrub of rather slow growth, with small, shining foliage. Familiar in old-fashioned gardens, indispensable in formal ones. It grows well in many soils and endures much pruning. Quite popular as a tub plant, for house and terrace decoration.
- B. sempervirens suffruticosa nana*—The pretty dwarf box so much used for edging. Slow growing, neat, dense; the best plant in cultivation for the purpose.

EUONYMUS

- E. radicans*—Trailing vine, small glossy foliage, self-clinging, fine for rocks and walls.
- E. radicans variegata*—A charming shrub of dwarf and training habit; it is perfectly hardy and has foliage beautifully variegated with silvery white, tinted with red in the winter. Unsurpassed for borders.

KALMIA—Laurel

- K. latifolia* (Mountain Laurel)—Evergreen shrub, with dense, round-topped head; leaves broad, glossy, dark green

above and yellowish green below. The flowers, beautiful pink and white, are borne in large terminal compound corymbs. In their prime about the middle of June.

RHODODENDRON

These are the most magnificent of the evergreen shrubs, with rich, green foliage and superb clusters of showy flowers. They require a peaty soil, free from lime, and a somewhat shaded situation; they do best near the seashore and will repay all the care that may be bestowed in preparing a bed suited to their wants. Protect in winter by driving stakes and filling in with leaves to cover plant. Can furnish in colors of red, pink, white, lavender and blue.

- R. in variety*—Colors red, pink, white, lavender and blue. Order by color.
- R. catawbiense* (Catawba Rhododendron)—A native sort. Parent of the hardy hybrids. Late spring bloom of rose-lavender.



AMERICAN ELM

Deciduous Trees

TREES and shrubs are the natural framework—and the lawn the setting of every landscape picture. With trees and shrubs we emphasize certain natural features of the earth's contour, screen an unsightly view, and give the skyline a most interesting outline, and it is possible by careful and judicious planting to give even a small piece of property an extensive appearance. Trees not only add to the beauty of the surroundings, but also offer their cooling and refreshing shade during the hot summer months and we all know that under

their delightful branches some of the happiest days of life are spent.

The planting of the right varieties for a harmonious combination and for adaptability and hardiness requires considerable knowledge of tree life. A great deal of money is wasted each year just through ignorance of what is required in the way of soil, drainage and protection for a tree in its new location. The planting of trees is a more serious problem than it at first appears. A big mistake often made by the inexperienced landscape gardener is to plant too closely, but it is not to be wondered at when you stop to think what a complete knowledge of tree growth is necessary to the proper handling of them. Then if the trees survive, after fifteen or twenty years they have become so crowded that they lose all semblance of their natural beauty.

Selection of Varieties As in all branches of Horticulture right selection of varieties should be made for best results. Soil conditions and drainage are factors which must be considered in making your selection. We'd be glad to advise you if you care to give us details.

Possibly, all things considered, the American Elm (*ULMUS AMERICANA*) will succeed on a greater variety of soils than any other deciduous tree. The Elm is indeed a most beautiful tree. It attracts by reason of its majestic appearance. It is desirable because of its rapid growth and fortunate indeed are those property owners in any city whose street is lined with the American Elm.

Other trees have their places and in some situations are more desirable, but for the greater number of home-owners the Elm is the most satisfactory.

ACER—Maple

Trees of this group are hardy, vigorous, adaptable to many soils, free from diseases, easily transplanted, regular in outline and beautiful in leaf. Nearly all are brilliantly colored in fall, especially the North American species.

DECIDUOUS TREES (Continued)



WEIR'S CUT-LEAVED MAPLE

- A. dasycarpum* (Silver Maple) — Of quicker growth than most trees and valuable where immediate shade is required. Forms a large, spreading head; the fine leaves are silvery beneath. Grows over 100 feet high.
- A. dasycarpum* var. *Wieri laciniatum* (Wier's Cut-leaved Silver Maple) — A very beautiful specimen tree, with delicately cut leaves and distinct, half-drooping habit. The leader grows rapidly upright, the slender lateral branches curve gracefully downward. Of noble proportions when undisturbed, yet patient under considerable pruning.
- A. negundo* (Ash-leaved Maple; Box Elder) — This species is easily distinguished by its pinnate leaves and greenish yellow bark. It grows rapidly into a large, spreading tree, 70 feet high. Found valuable for planting timber claims, shelter-belts, etc., in the West, where it endures both drought and cold.
- A. platanoides* (Norway Maple) — A handsome tree, of large, fairly rapid growth, 80 to 100 feet, forming a dense, rounded head of strong branches and broad, deep green leaves. Sturdy, compact, vigorous, it is one of the very best trees for lawns, parks and gardens.
- A. platanoides* var. *globosum* — Fine, ball-shaped variety; standard form; excellent for lawn and formal effects.
- A. platanoides* var. *Reitenbachii* (Reitenbach's Norway Maple) — A magnificent variety. Foliage beautiful green in

early spring, changing to purple toward midsummer. Retains its color all season.

- A. platanoides* var. *Schwedleri* — The Purple Norway Maple's beautiful leaves attract attention at all seasons, but are especially fine in spring, when their gleaming red and purple contrasts brightly with the delicate green of other trees. In midsummer they are purplish green, in autumn golden yellow.
- A. pseudo platanus* (European Sycamore Maple) — A broad, handsome tree of medium size, rarely over 60 feet high, with larger, darker leaves than other maples. Casts dense, cool shade.
- A. rubrum* (Red or Scarlet Maple) — Excellent habit, scarlet flowers in early spring; dense foliage, gorgeous color in autumn.
- A. saccharum* (Sugar or Rock Maple) — This tree is chieftain of its kind, straight, spreading, symmetrical, of grand proportions, often 120 feet in height, and longer lived than most men who plant it. It grows well in all except damp, soggy soils, and roots deeply, allowing the grass to grow close about its trunk. Its leaves have very rich autumn tints of clear yellow and scarlet.
- A. tataricum* (Tartarian Maple) — Hardy, low-branched tree of shrubby growth; bark light color and smooth. Grows best in somewhat moist soil.
- A. tartaricum* var. *Ginnala* (Tartarian Maple) — Graceful shrub, with handsome foliage, turning bright red in



NORWAY MAPLE

The Most Profitable and Hardest Commercial Peach—

THE SOUTH HAVEN

(TRADE MARK REGISTERED -- U. S. Pat. Office)

Can only be secured from us. Read the reprints of letters just received and include this wonderful peach in your next planting

THE AMERICAN GYPSUM COMPANY
GENERAL OFFICE AND MILLS
PORT CLINTON, OHIO

November 28, 1924

The Greening Nursery Co.
Monroe, Michigan
Gentlemen:-

For some unexplainable reason your letter of September 8th, with reference to my visit to the South Haven Peach District was unanswered and the fact has just been called to my attention. I hope it is not too late to inform you of my opinion of the South Haven peach.

As you perhaps know, we left here on Sunday morning [Aug. 31st] to take advantage of Labor Day. Our doing this brought us into South Haven a week before the peach was actually ripened, so am unable to say much as to its quality. However, we were interested to find that the peach ripens from two to three weeks before the Elberta. This meant considerable to us for reasons which anyone with a knowledge of marketing can appreciate. We also found that the trees were heavily laden with fruit and that they are persistent bearers and that they have not been affected by severe, cold winters. Taking all in all I have sufficiently satisfied myself to give preference to the South Haven Peach in future plantings.

I planted 300 trees two seasons ago and will plant that many more the coming spring and will perhaps continue at this rate for the next five seasons unless, of course, something prevents my doing so.

Yours very truly,

[Signed] E. A. WIECHEL

Sidney, Indiana

Greening Nursery Co.
Monroe, Michigan
Gentlemen:-

I enclose check for trees. The 500 trees were the best stock of peach trees I ever saw. I have 2500 trees, peach and apple, in my orchard, but these 500 are the finest I ever set.

Yours respectfully,

[Signed] J. H. MORT

J. H. WAHLERS
GROWER AND SHIPPER OF CHOICE FRUIT
DANBURY, OHIO

Sept. 17, 1924

The Greening Nursery Company
Monroe, Michigan
Gentlemen:-

I have just returned from Kibbie, Michigan, where I went with other growers in this section to inspect and see with my own eyes the South Haven peach, and I was very much impressed by it. The size and color are splendid as we saw them there. They also had a heavy crop this year. If it will do as well in Ohio it should be a coming peach as it comes on at a very good season.

I was much interested in the work Mr. Gibson is doing for your nursery in "bud selection" toward improving varieties as to color, bearing habits and yield. I have known for some years that there is a big difference in trees, but have never kept exact records as Mr. Gibson has done for you.

Yours very truly,

[Signed] J. H. WAHLERS

South Haven, Mich.

Greening Nursery Company
Monroe, Michigan
Gentlemen:-

I wish to say I have a few of your South Haven peach trees that are five years old. This year will make the third fine crop we have had from them. We are much pleased with the peaches as they ripen just before the Elbertas and are large and fine. Shall order some more for spring planting.

Yours respectfully,

[Signed] F. E. WARNER

Three Rivers, Mich.

In the spring of 1921 I bought some of the South Haven peach trees. This year on the 22nd of August, I picked a half bushel of peaches from each tree. These peaches were the largest and finest flavored that I ever tasted.

[Signed] C. A. SLACK

If South Haven peaches are wanted for Spring 1925, write at once for prices. We have other fruits of our own growing, propagated from known parents, too, which should interest you. May we send our 200 page Catalog giving the full description of the stock we propagate?

The Greening Nursery Company

Monroe, Michigan

LARGEST GROWERS OF TREES IN THE WORLD

Side Lights

The Big, Weak Blush.
The Coolly Oyster.
College Exchanges.
New-Old Visions.

WU'S IS

WU'S IS
WU'S IS
WU'S IS

Peggy, Count Hubby

Peggy, Count Hubby
Don't Kiss, Me Up
But Be Friendly

LEGION POSTS IN

WASHINGTON FIGHT
LAFOLLETTE VOTE
Ex-Servicemen Urge Davis
if Coolidge Does Not
Satisfy.

ASTEC CITY, NEW

ASTEC CITY, NEW
SPORTING CENTER,
TO RISE IN MEXICO
Staten City, Sept. 24.—The
city of Astec, in the state of
Sonora, Mexico, is to be
built on the ruins of the
ancient city of Astec, which
was destroyed by the Spaniards
in 1540.

G. O. P. IS ELATED

G. O. P. IS ELATED
OVER TRANQUILITY
OF DETROIT MEET
Coutzens Indorsement and
Greasebeck Power Cheer
Party Leaders.

COOLIDGE SPEAKS TONIGHT

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AT PHILADELPHIA FESTIVAL
The President will speak at
the annual meeting of the
Philadelphia Festival, which
will be held at the University
City Hotel, Philadelphia, at
8 o'clock tonight.

FEAR STEAMER

FEAR STEAMER
WITH 25 LOST
IN LAKE HURON
Dangers Start Search for
Steamer Clifton, Last
Heard of Tuesday.

THE SHOW

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DECIDUOUS TREES (Continued)

autumn; may be used as substitute for Japanese Maples where they are not hardy.

JAPANESE MAPLES

A. palmatum (Japanese Maple)—Handsome shrub of dense though graceful habit; elegant foliage, especially in spring and fall when leaves assume most striking tints.

A. palmatum var. *atropurpureum* (Blood-leaved Japanese Maple)—Hardy. Leaves blood-red in spring, changing to dark purple; pretty throughout the season.

AESCULUS—Horse-Chestnut

A. hippocastanum (European White-Flowering Horse-Chestnut)—A large tree, 40 to 60 feet tall, of regular outline, spangled in May with great upright spikes of white and red flowers. Has no superior as a specimen flowering tree.

A. carnea (Red-flowering Horse-Chestnut)—A somewhat smaller tree, rarely over 30 feet, with darker leaves and splendid flower-spikes opening a little later. Fine for contrasting with the white-flowered.

AILANTHUS

Celestial Tree, Tree of Heaven

A. glandulosa—An extremely quick-growing tree; 60 feet tall and tropical looking with pinnate, palm-like leaves. Valuable because it thrives in smoky cities and in soils where other trees perish.

ALNUS—Alder

A. glutinosa (European or Common Alder)—Foliage roundish, wedge-shaped, wavy. Remarkably quick in growth; 30 to 60 feet high.

A. glutinosa laciniata imperialis (Imperial Cut-leaved Alder)—Of stately, graceful habit, 30 to 60 feet high, with large and deep-cut foliage. Vigorous and perfectly hardy. A grand lawn tree.

AMYGDALUS—Almond

A. communis flore pleno rosea (Large Double-Flowered Almond)—A vigorous, beautiful tree, covered in May with double rose-colored blossoms, like small roses.

A. Davidiana alba (Flowering Almond)—Flowers single white and appear before the leaves; very showy. The first tree to flower in the spring and hence particularly desirable on that account.

A. Davidiana rubra—A variety with single rose-colored flowers.

For dwarf varieties, see *Prunus*, in "Ornamental Shrubs."

ARALIA—Angelica Tree

A. spinosa (Hercules' Club)—A showy native with broad, handsomely cut leaves and huge clusters of small white flowers in July. Its winter effect is unique and handsome. Grows to 30 or 40 feet high.

BETULA—Birch

B. alba (European White Birch)—This is the famous birch of literature, growing sometimes 80 feet high. Quite erect when young, its branches begin to droop gracefully with age. Its bark is snow-white and very effective in landscape views, especially if grown in front of a background of dark evergreens.

B. alba var. *purpurea* (Purple-Leaved Birch)—Foliage deep purple; white bark, vigorous habit.

B. alba var. *laciniata pendula* (Weeping Cut-leaved White Birch)—One of the most popular of the weeping trees. Foliage deeply cut, drooping in the most picturesque manner; silvery white bark; vigorous growth.

B. alba pendula Youngii (Young's Weeping Birch)—Umbrella form; its leaves, as well as branches, bend toward the ground.

B. lutea (Yellow Birch)—Bark is silvery gray or light orange; leaves hairy along the veins beneath; one of the most valuable forest trees in the Northern States. A blaze of gold in autumn.

B. papyrifera (Canoe, or Paper Birch)—Ornamental tree, with very white trunk and loose, graceful head when older; leaves large and handsome.

CATALPA

C. Bungei (Chinese Catalpa)—A curious dwarf catalpa. It is very useful in formal work when grafted on stems of the *Catalpa Speciosa*, forming a pretty, dome-shaped head 10 to 12 feet high, of great, soft, heavy leaves. The flowers are borne in large clusters a foot long; the leaves are laid with shingle-like precision. Hardy, strong-growing, unique.

C. Bungei (Dwarf Bungei)—A dwarf form brought about by working low, making a handsome dwarf specimen.

C. speciosa (Western Catalpa)—A fine, hardy sort, well adapted for forest and ornamental planting. The coarse-grained soft wood is very durable and useful for railroad ties, fence-posts, etc. Blooms earlier than the others and grows to be a large tree 100 feet high. In late summer its great crop of long, narrow "beans" is very effective.



CATALPA BUNGEI

DECIDUOUS TREES (Continued)

CELTIS—Hackberry, Nettle Tree

C. occidentalis—A rare native tree that deserves much more general planting. It grows 100 to 120 feet high and its light green leaves are glossy, pointed, almost entirely free from insects; the branches spread horizontally, forming a wide, elm-shaped head of medium size. Vigorous, hardy and healthy, thriving in all soils.

CERASUS—Cherry

A very ornamental family of trees. The drooping varieties are especially adapted to beautify small grounds. As single specimens on the lawn they are unique and handsome and require only to be better known in order to be extensively planted.

C. avium var. *flore plena alba* (*prunus*) (Large Double-Flowered Cherry)—At the period of flowering in May, a remarkably beautiful and attractive tree. The flowers are white and so numerous as to conceal the branches and present to the eye nothing but a mass of bloom, each flower resembling a miniature rose. A valuable variety.

C. padus (*prunus*) (European Bird Cherry)—One of the earliest of all trees to leaf out in the spring. Makes

a shapely tree of 10 to 20 feet. Beautiful when in bloom in May.

C. serotina (Wild Black Cherry)—Strong straight tree, oftentimes reaching the height of 100 feet. Flowers when leaves are full grown. Fruit size of pea, purplish black when ripe in late summer. Valuable for a lawn tree.

C. Sieboldii flore plena (*prunus*) (Siebold's Double - Flowered Cherry) — Semi-double flowers, white, tinged with red.

C. var. Sieboldii flore plena ruhrum (*prunus*) (Siebold's Red - Flowering Cherry.)

C. James H. Veitch—A Japanese cherry, producing deep rose-pink double flowers in early spring in great profusion. One of the most beautiful.

C. virginiana (Choke Cherry)—Tall shrub with rough speckled bark. Blooms with coming out of the leaves. Fruit red or amber colored, the size of a pea in summer. Valuable in landscape work.

CERCIS—Red Bud Judas Tree

C. canadensis—The hardiest and perhaps the finest species of a handsome group of early and profuse-flowering trees. Medium height, 20 to 30 feet, forming a broad, irregular head of glossy, heart-shaped leaves that color pure

DECIDUOUS TREES (Continued)

yellow in fall. It blooms in earliest spring, with the dogwoods and magnolias, and is valuable for grouping with them. Its masses of small, delicate rosy purple flowers wreath the leafless branches so thickly as to give very fine contrasts and cheery spring effects. Must be transplanted when small.

CHIONANTHUS—Fringe Tree

- C. virginica* (White Fringe)—A small native tree or shrub, of roundish form, with large, glossy leaves and drooping racemes of pure white flowers, having narrow, fringe-like petals; blossoms in May or June. A superb lawn tree.

CORNUS—Dogwood

- C. florida* (White-Flowering Dogwood)—The great white flowers are 3 inches and more in width, lasting in favorable weather for as many weeks. Besides the fine characteristics given above, the bright red bark on its young growths makes it attractive and cheery in winter. Tree rarely grows over 20 feet in height and is branching in habit. Blooms when small.

- C. florida* var. *flore rubra* (Red-Flowered Dogwood)—A variety producing flowers suffused with bright red; blooms when quite young. One of the finest flowering trees.

CRATAEGUS—Flowering Thorn

A low, dense, neat habit of the thorns adapts them for planting in small yards and for grouping anywhere. Are very hardy and grow well in all dry soils. The foliage is varied, always attractive, handsome and almost evergreen in some cases; the flowers are showy and abundant, often quite fragrant; the fruits are retained long in some species, are so thick as to burden the branches and frequently of bright color. Their foliage colors brilliantly in fall.

- Crataegus cordata* (Washington Thorn)—Blooms May and June. Fruits September and October. A very desirable species with beautiful fall coloring and clusters of bright red fruit remaining a long time on the branches. Excellent for hedges.

- C. Crus-galli* (Cockspur Thorn)—A dwarf tree rarely over 20 feet high, with widely extending horizontal branches, giving it a flat-topped effect. The leaves are thick, glossy, coloring to rich orange and scarlet in fall; flowers profuse white with tinge of red, opening in May; fruits showy scarlet, persistent until spring.

- C. monogyna alba flore pleno*, otherwise called *Oxyacantha Alba Flore Pleno* Common Hawthorn)—The celebrated English hedge plant; flowers pure white, sweet-scented, followed by scarlet fruit.

- C. monogyna rosea flore pleno* (Double Pink Hawthorn)—Practically the same description as *Alba* except of course pink-flowering.

- C. oxycantha* (English Hawthorn)—Rapid grower with single white flowers in spring followed by scarlet fruit. Excellent for a hedge plant.

- C. Paulii* (Paul's Double Scarlet Thorn)—A tree of fine habit, with rich, luxuriant foliage; flowers much larger than the double red of a deep crimson color, with scarlet shade and very double.

CYTISUS—Golden Chain

- C. laburnum vulgare* (Common Laburnum or Golden Chain)—A native of Europe, with smooth and shining foliage. The name "Golden Chain" alludes to the length of the drooping racemes of yellow flowers, which appear in June.

- C. liburnum alpinum* (Alpine or Scotch Laburnum)—A native of the Alps of Jura. Also said to be found wild in Scotland. Of irregular, picturesque shape, smooth, shining foliage, which is larger than the English, and yellow flowers in long racemes. Blooms later than the English.

FAGUS—Beech

The Beeches are noted for their rich, glossy foliage and elegant habit. The Purple-leaved, Cut-leaved, and Weeping Beeches are three remarkable trees beautiful even while very young, but magnificent when they acquire age. As single specimens upon the lawn they exhibit an array of valuable and attractive features not to be found in other trees.

- F. americana* (American Beech)—One of the finest American trees.

- F. sylvatica* (European Beech)—A beautiful tree attaining a height of 60 to 80 feet.

- F. var. pendula* (Weeping Beech)—A remarkably vigorous, picturesque tree of large size and of wonderful grace and beauty.

- F. var. purpurea Riversi* (Rivers' Smooth-Leaved Purple Beech)—Compact, symmetrical habit of growth and crimson foliage early in spring changing to a

DECIDUOUS TREES (Continued)

dark purple in summer. The finest of all purple-leaved trees.

FRAXINUS—Ash

F. americana (American White Ash)—A well-known native tree.

F. var. pendula (Weeping Ash)—The common, well-known sort; one of the finest lawn and arbor trees. Covers a great space and grows rapidly.

GLEDITSIA—Locust

G. triacanthos (Honey Locust)—Good for park or street planting and makes impenetrable hedges if planted thickly and pruned severely. Bears small pink flowers in May in racemes followed by pods often 18 inches long.

GYMNOCLADUS

G. dioica (Kentucky Coffee Tree)—A picturesquely irregular tree, 30 to 60 feet high, with peculiar rough-barked twigless branches and broad fronds of twice-pinnate foliage of a peculiar bluish green. Bears long racemes of white flowers in early summer. The familiar name is from the seeds in its broad beans, which were once used for coffee in the southern mountains. Yellow in fall.

HALESIA

Snowdrop, or Silver Bell Tree

H. tetraptera—A neat and pretty little tree, rarely over 12 feet high, with large, dark green leaves. May be grown as a shrub. In May, while the leaves are yet small, its branches are hung thickly with small white or pinkish drooping bells about one inch long. These are followed by large and curious winged seeds which impart to it a peculiar ornamental effect.

JUGLANS—Walnut

Juglans cinerea (Butternut)—A strong native tree; open-headed and spreading, with grayish rough bark; valuable for its nuts, as well as an ornamental tree; foliage resembles ailanthus.

J. nigra (Black Walnut)—Native tree of great size and majestic habit; bark is of dark brown color; foliage beautiful; valuable.

J. regia (English Walnut)—A native of Persia; a light, sandy soil or well-drained hillside is to be preferred for the growth of this tree; grows very large and lofty in its native country; nut oval and very fine.

J. Sieboldiana (Siebold's Japan)—A most valuable species, which on account of its hardness and vigorous growth is well adapted for our country. It grows with great vigor, assuming one of the most shapely trees for ornament and shade, without any particular pruning or care. One of the hardiest of nut trees. Tree begins to bear when two

or three years old. Its nuts are considerably larger than the common hickory nut and borne in larger clusters of 15 to 20. The shell is a little thicker than that of the English walnut, which it resembles in a general way; the kernels are meaty, delicate, and can be removed entire; considering its early bearing, hardness and quality, it is regarded the most valuable of any nut for our country.

KOELREUTERIA

K. paniculata (Varnish Tree)—From China. Desirable lawn tree; has large pinnate leaves; in July produces a mass of showy orange-yellow flowers, followed by curious seed-vessels.

LARIX—Larch

L. europaea (European Larch)—A tall and handsome deciduous conifer, which grows to 100 feet in height, with tapering trunk and pyramidal head. Particularly beautiful in early spring when covered with soft and feathery foliage of a delicate green. Its plummy foliage and drooping twigs give it a very graceful effect, while its trim, straight figure is most imposing and majestic and becomes the feature of any landscape. A grand, hardy, lawn tree that thrives well in all but soggy soil. The autumn effect is very beautiful; foliage turning to a beautiful yellow, giving the tree the appearance of being a fountain of gold.

L. laricina (American Larch)—Similar to the European but is of a light, bluish green color. Hardy and valuable. Very handsome in spring.

LIQUIDAMBAR

L. styraciflua (Sweet Gum)—A tree that is beautiful at all stages and useful in all sorts of planting. Varying from 60 to 80 feet in height, it has a narrow, ovate head, formed of short, corky-winged branches and masses of star-shaped, lustrous leaves that color to intense crimson scarlet in fall. Even in winter its odd, swinging sea balls and corked-winged branches make it picturesque and interesting. The name is from its fragrant sap and leaves. We have no finer tree for street and park planting or for specimens.

LIRIODENDRON

L. tulipifera (Tulip Tree)—A tall, magnificent native of rapid pyramidal growth to 100 feet. Its smooth, erect gray trunk rises to a great height and is clothed with a splendid vesture of large, glossy leaves, spangled in spring with large tulip-shaped flowers of greenish yellow and orange. One of our most distinguished tall trees, for broad avenues, parks and lawns.

DECIDUOUS TREES (Continued)

MAGNOLIA

The spring inflorescence of the Magnolias is grand beyond description. Their great white, pink and purple cups open in rich profusion before the leaves of other trees appear. The fruits which follow them are large, bright-colored and showy; the leaves are tropical in size and appearance; the trees are naturally of fine habit and bloom when quite small. They should be transplanted only in spring.

NATIVE SORTS

These are among the most beautiful trees. Please note the native sorts attain a height of 50 to 60 feet as far north as Ohio.

M. acuminata (Cucumber Tree)—A tree of large pyramidal growth. The fruit resembles a small cucumber when young, but when ripe is of a deep scarlet. The leaves are large, deep green. Flowers yellow, tinged with bluish purple.

M. glauca (Sweet Bay)—Irregular in habit; foliage thick, glossy, deep green. It blossoms in June; flowers white and sweet-scented.

M. tripetala (Umbrella Tree)—A hardy, vigorous, medium-sized tree. Produces white flowers in June. Immense leaves.

CHINESE SPECIES AND
THEIR HYBRIDS

The Chinese sorts and their Hybrids are small, dwarf trees of shrubby nature. These are excellent for garden or lawn.

M. Soulangeana (Soulange's Magnolia)—Small tree or large shrub. One of the hardiest and most popular of the foreign Magnolias. Blossoms in April; flowers white inside, outside petals pink. Foliage dense and glossy. Superb.

MALUS—Fragrant Flowering Crab
(See under Pyrus)

MORUS—Mulberry

M. alba (White Mulberry)—The silkworm Mulberry. Tree is usually thick-topped and bushy grower. Foliage light green; fruit white, or sometimes violet-colored.

M. alba tatarica (The Russian Mulberry)—A very hardy variety with reddish fruit.

M. alba pendula (Tea's Weeping Mulberry)—One of the best of small weeping lawn trees, forming a perfect umbrella-shaped head. Foliage light green, deeply lobed. Fruit reddish purple. Thrifty and hardy.

M. Downings (Downings)—Large edible fruit.

M. Globe Top—An entirely new introduction. Hardy with a globe-shaped head of similar form to *Catalpa Bungei* even better and more attractive than that well-known tree.

M. New American—Rapid grower; hardy. Fruit large and of prime quality.

OSTRYA—Ironwood

O. virginica (Hop Hornbeam)—A graceful, birchlike tree of small to medium size, rarely over 30 feet, and slow growth. The bark is beautifully furrowed, the fruits clustered like hops. Valuable for dry situations.

PERSICA—Peach

P. sanguinifolia (Greening's Blood-Leaved Peach)—Valuable because of its handsome blood-red foliage.

PLATANUS—Plane Tree, Sycamore

This is a hardy tree and is well adapted for cities, where smoke, soot and dust gather upon shade trees and kill or seriously affect the foliage of other trees. It thrives well where other shade trees die.

P. orientalis (Oriental Plane)—One of the oldest cultivated trees and among the best for street and avenue planting. It grows rapidly to grand size, is bold, picturesque, hardy, healthy, free from insects, vigorous in all soils, especially along the water's edge. A lofty, wide-spreading tree, growing 60 to 80 feet tall, with large, leathery, clear-cut leaves that turn yellow in fall.

DECIDUOUS TREES (Continued)



LOMBARDY POPLAR

POPULUS—Poplar

P. alba Bolleana—Similar to the well-known Lombardy Poplar in habit, but broader, and like it useful in breaking the monotony of lower round-topped trees. Will grow to a tall spire, 80 feet high. Its leaves are glossy green above, silvery beneath. A favorite with landscape gardeners.

P. deltoides monilifera (Carolina Poplar)—Unexcelled for quick growth and effect, its rapid growth giving an air of luxuriance to places where other

trees appear starved. Showy and cheery from the constant movement of its glossy, silver-lined leaves, yet always casting a dense, cool shade. If well pruned back during the first few seasons it makes a strong, durable tree, 60 to 80 feet high.

P. nigra italica (Lombardy or Italian Poplar)—Attains a height of from 100 to 150 feet. Well known and remarkable for its erect, rapid growth and tall, spiry form. Indispensable in landscape gardening, to break the ordinary and monotonous outlines of most other trees.

P. Van Geertii aurea (Golden Poplar)—One of the finest golden-leaved trees for contrast groups, as it holds its color well throughout the season. Has all the fine vigorous characteristics of the species and grows to about the same height.

PRUNUS—Plum, Flowering Plum

P. cerasifera Pissardii (Purple-Leaved Plum)—A distinct and handsome little tree, rarely over 20 feet high, covered with a mass of small white single flowers in spring later with showy pinkish purple leaves that deepen in color to the end of the season. Valuable for



TEA'S WEeping MULBERRY

DECIDUOUS TREES (Continued)



BECHTEL'S CRAB, known botanically as *Pyrus Malus Augustifolia*. See below. This is a sweet scented flowering tree—very hardy and beautiful; blooming in May.

ornamental hedges or planting in quantity for contrast. It is perfectly hardy wherever the common plum will stand and is a unique and beautiful ornament to the lawn at all times of the year.

P. padus (European Bird Cherry)—A rapid growing, beautiful tree, with glossy foliage and long bunches of white, fragrant flowers in May, succeeded by clusters of fruit like black currants.

P. triloba fl. pl. (Double-Flowering Plum)—A charming shrub or small tree, 3 to 5 feet high, of spreading, vigorous growth. Very early in spring, before its leaves appear, the whole tree is decked in a fleecy cloud of very double, light pink blossoms. Its effect on a still, leafless landscape is very bright.

PYRUS—Flowering Crab

P. malus augustifolia, Bechtel's (Flowering Crab)—A low, bushy tree, rarely over 20 feet in height. It is the most beautiful of all the fine varieties of Flowering Crabs. At a distance the tree seems to be covered with dainty little roses of a delicate pink color. Blooms when quite young. Is very fragrant.

P. malus baccata (Siberian Crab)—Small, spreading tree; leaves bright green;

flowers pure white and fragrant; ornamental fruit.

P. malus floribunda—Single flowers in wonderful profusion; beautiful carmine in bud; white when open. May. Fruit very ornamental in autumn.

P. malus Niedwetzkyana (Pink Siberian Crab)—Loose small tree with large deep pink flowers in May followed by purplish fruit.

P. malus Parkmanii—Habit dwarf; a compact grower. Foliage dark green, remaining late on the tree. Flowers very double, dark rose, drooping and retain their color until they drop from the tree. A beautiful variety.

P. malus Scheideckeri—A double flowering sort. Is a beautiful small tree with double light rose colored blossoms in May.

QUERCUS—Oak

Although their growth at first is slow, if planted in good soil the oaks will outgrow many other trees. For wide lawns, parks and public grounds, avenues, etc., where they have room to develop, few trees are so majestic and imposing, so enduring, so varied in expression. Their great vigor and hardihood enables them to withstand many untoward conditions.



QUERCUS PALUSTRIS (PIN OAK) (Page 136)

DECIDUOUS TREES (Continued)



(*Salix blanda*)
WISCONSIN WEEPING WILLOW

- Q. alba* (White Oak)—Grandest of its genus and our American trees. A spreading, towering species, growing 100 feet high when fully developed, with rugged, massive trunk and branches. The deeply lobed leaves change to dark crimson in fall.
- Q. coccinea* (Scarlet Oak)—A grand, round-topped tree 60 to 80 feet high, with bright green deeply-cut leaves that color to sparkling red in fall.
- Q. palustris* (Pin Oak)—Almost pyramidal in habit and sometimes described as half weeping when old, because its lower branches touch the ground. It grows and develops the family characteristics faster than most oaks, as may be seen from some fine avenues planted within the last score of years. It grows 60 to 80 feet, sometimes taller. The leaves are deep green, glossy and finely divided. Orange scarlet in fall.
- Q. pyramidalis, or fastigiata*—Handsomeness, monumental, pyramidal oak, with dark green foliage. A fine subject for formal work.
- Q. robur* (English Oak)—The Royal Oak of England, a well-known tree of spreading, slow growth.
- Q. rubra* (Red Oak)—Stately, spreading, symmetrical; leaves shining deep green; rich fall color. A most beautiful tree for the lawn.

ROBINIA—Locust or Acacia

- R. hispida* (Rose or Moss Locust)—A native species of spreading, irregular growth, with long, elegant clusters of rose-colored flowers in June and at intervals all the season.
- R. var. hispida rosea* (Hairy Locust)—Very low and shrubby, with beautiful, clear pink flowers in loose racemes. All parts of the plant, except the flowers are bristly or hairy.

R. pseudacacia (Black or Yellow Locust)—A native tree, of large size, rapid growth and valuable for timber as well as quite ornamental. The flowers are disposed in long, pendulous racemes, white or yellowish, very fragrant, and appear in June.

SALISBURIA—Ginkgo

- S. ginkgo biloba* (Maidenhair Fern Tree)—A distinguished Japanese tree, 40 to 60 feet high, of columnar growth when young, spreading with age into an odd sketchy outline. Its thick, leathery leaves are clear-cut and shaped like the leaves of the Maidenhair Fern. A rare and elegant tree that is yet robust enough to endure general city planting. Its unique appearance and habit of growth make it a valuable acquisition. Grows fast; has no insect or fungous enemies.

SALIX—Willow

Besides the beauty of their airy summer foliage the Willows have a distinct value in the brightness of their bark when leaves have fallen. There are few trees that can be used to such advantage for cheery winter effects. They grow fast and are adapted to a variety of soils and uses. Frequent cutting back gives a thicker growth of bright young twigs.

- S. babylonica* (Weeping Willow)—Probably the best known of the Willows; weeping habit, with long, slender, olive-green branches; often grown in cemeteries.
- S. blanda* (Wisconsin Weeping Willow)—Of drooping habit and hardier than *Babylonica*. Valuable on account of its ability to resist severe cold.
- S. caprea var. pendula* (Goat or Pussy Weeping)—Branches spreading and drooping, forming an umbrella shaped head.
- S. pentandra* (Bay, or Laurel-Leaved Willow)—Ornamental tree of upright growth; bark brownish green; leaves dark glossy green; excellent for seashore planting.
- S. incana* (Rosemary Willow)—Dwarf habit, feathery branches, silvery foliage; usually grafted on 5 to 6-foot stems, when it forms a dense round top; useful in formal plantings.
- S. vitellina, var. britzensis* (Bronze-Barked Willow)—Salmon yellow young growth turning bronzy-red in fall.
- S. vitellina lutea* (Golden Willow)—A large and venerable appearing tree, conspicuous at all seasons but particularly in winter, on account of its yellow bark.

DECIDUOUS TREES (Continued)

S. vitellina aurea pendula—Similar in growth and color of bark to *S. vitellina*, but branches are pendulous.

SASSAFRAS

S. variifolium—A really handsome medium-sized tree, 30 to 50 feet high, with fragrant, light green foliage and bark. Its small yellow flowers are attractive in early spring and followed later by dark blue fruits. Grows well even on thin soils.

SOPHORA—Pagoda Tree

S. japonica (Japan Pagoda Tree)—An odd and unique specimen tree, 40 to 60 feet high, so different from other trees in style of growth that it always attracts attention. Its short branches form a dense, round head. In August its shining green leaves are decked with clusters of white blossoms.

SORBUS—Mountain Ash

Medium-sized tree, with handsome, pinnate leaves, neat habit and showy crops of bright red berries, persistent until late in winter, giving a brilliant note to the autumn landscape.

S. aucuparia (European Mountain Ash)—Hardy, erect, 20 to 30 feet high, with smooth bark and dense, regular heads, berry clusters large and bright.

S. pendula (Weeping Mountain Ash)—The long, slender branches are recurved and form a parasol-like arrangement. Very choice for lawns.

S. quercifolia (Oak-Leaved Mountain Ash)—Of the same fine habit, but with dark, lobed leaves, downy underneath.

TILIA—Linden, Basswood

The Lindens grow fast, forming noble trees of rounded outline, and casting a dense, cool shade. The leaves are large and cordate, the flowers light yellow, exhaling a delightful citron odor. All are among our best large-growing street and avenue trees; fine also for specimens and grouping.

T. americana (American Linden)—A stately tree, growing 60 to 80 feet tall, with large, shining cordate leaves. Particularly valuable for its beautiful white wood. Its flowers appear in July.

T. tomentosa (Silver-Leaved Linden)—Conspicuous among other trees because of its silver-lined leaves. These give it great brilliancy when ruffled by the wind. Handsome, vigorous, pyramidal in shape; 60 to 80 feet high.

T. vulgaris (European Linden)—Very fine pyramidal tree of large size, having large leaves and fragrant flowers. Very desirable.



CAMPERDOWN WEEPING ELM

T. platyphyllos (Large-Leaved European Linden)—An exceedingly broad-leaved variety, growing into a noble tree 60 to 80 feet high. It flowers in June, the earliest of the Lindens.

ULMUS—Elm

U. americana (American Elm)—Easily distinguished by its wide-arching top, vase-like form and pendulous branchlets. Next to the oak, this is the grandest and the most picturesque of American trees. Attains 80 to 100 feet. Dull yellow or brown in fall.

U. campestris (English Elm)—An erect, lofty tree, of rapid, compact growth, with smaller and more regularly cut leaves than those of the American, and darker colored bark. The branches project from the trunk almost at right angles, giving the tree a noble appearance.

U. campestris Wheatleyi (Cornish Elm)—A narrow, pyramidal tree with ascending branches. Small dark green leaves. Retains its verdure the entire summer.

U. glabra (*scabra-montana*) (Scotch or Wych Elm)—Broad, round-topped head, spreading branches.

U. glabra Camperdownii (Camperdown Weeping Elm)—One of the finest drooping lawn trees, the long branches spread horizontally in an attractive way and then gracefully turn down, forming a picturesque, natural arbor or summer-house.

U. racemosa (Cork Elm)—Short, spreading branches, forming an oblong round-topped head. Branchlets irregularly corky-winged after the second year.



DIERVILLA CANDIDA (WEIGELA)

The pink flowering type is Diervilla Rosea (Weigela)
(See page 143)

Shrubs

FLOWERING shrubs and plants, and those with brilliantly colored foliage, are to landscape gardening what the finishing touches are to a picture or the decorations to a room. They help to fill out the well-rounded forms of groups of trees, and, possessing more variety of colors and foliage than the trees, they add beautiful bits of color and pleasing contrasts. Being of small size, they are especially useful in small gardens and borders, for ornamenting the foreground of groups of trees and evergreens, and in particular they serve a purpose of a setting or ornamentation close to the dwelling. A driveway or walk may be effectively hidden and broken here and there by dwarf plantings exhibiting fresh charms, surprisingly delightful to the eyes as they fall upon new views. To give a walk or drive new interest by its curves and windings, and to plant with the choicest of trees and shrubs that add half-hidden beauties of flowers, foliage and wood at every turn, is the test of any work in landscaping.

Shrubs must suit the object for which they are grown. Often a fine lawn is spoiled by having thrust in here and there trees and shrubs without relation to method, purpose or design. They are best planted in groups with due consideration of size, character of growth and effect. They afford excellent screens for undesirable objects, such as chicken yards, old buildings and fences, and the effect of a shrub border for a front or back lawn, produced by careful setting, is always a pleasing one. Beautiful color effects are obtained by selecting shrubs with foliage of contrasting colors. The silver, golden, purple and many shades of green, if carefully arranged, never fail to catch the eye and leave a pleasing effect.

Shrubs vary in size from dwarf to tall—there are scarcely two varieties which produce the same effect. With the exception of a little pruning and an occasional stirring of the soil, shrubbery practically takes care of itself.



BERBERIS THUNBERGII

One of our *Berberis Thunbergii* blocks. The plants in this picture are two years old. They are ready to dig and ship. Note how thrifty and bushy they are. Our soil is especially adapted to both fruit and ornamental stocks and such as shown in this picture are sure to grow when transplanted.*

SHRUBS (Continued)

AMELANCHIER

- A. canadensis* (Botryapium) (Service Berry)—A bushy shrub flowering in May, followed by fruit of a maroon-purple in June. Very profuse bloomer. Color of flower, white.
- A. vulgaris* (European Service Berry)—Very similar to *A. Canadensis* immediately above. Blooms in May.

AMORPHA

- A. fruticosa* (False Indigo)—Grows 6 to 10 feet high and forms a large, spreading bush, with compound leaves, containing 10 to 20 bright green leaflets and slender spikes of deep violet-blue flowers in June, after the flowers of most shrubs have faded.

AMYGDALUS

- A. communis* (Flowering Almond)—In full bloom before leaves appear. Dwarf, bushy and compact. Flowers double, of rose or white.

ARALIA—Angelica Tree

- A. acanthopanex pentaphyllum*—A pretty Japanese shrub, of medium size and rapid growth; branches furnished with spines; leaves pale green. Blooms in June.
- A. spinosa* (Hercules' Club. Devil's Walking Stick)—A native plant, valuable for producing tropical effects.

AZALEA

In early spring the Azaleas make a gorgeous show of bloom. A good way to plant them is among Rhododendrons, for they thrive in the same kind of soil and under similar conditions, besides brightening the shrubbery with their flowers before the Rhododendrons are ready to bloom.

- A. mollis*—The large flowers are produced in great trusses and in different shades of red, white, yellow and orange, rivaling the Rhododendron Catawbiense in size and beauty. The plants grow 2 to 3 feet high and in early spring are covered with a mass of bloom before the leaves appear.

BENZOIN

- Benzoin aestivale (odoriferum)* (Spice Bush)—An attractive shrub valued for its handsome flowers, which come before the leaves in early spring. Foliage turns bright yellow in autumn. Flowers yellow in April. Fruit scarlet and conspicuous.

BERBERIS—Barberry

There is a charm about the Barberries hard to describe, and no more

SHRUBS (Continued)

practical and beautiful shrub can be grown. Their masses of white, yellow or orange flowers are showy in spring, their leaves color brightly in fall, their scarlet, blue or black berries are persistent through most of the winter. They make a dense low hedge, will stand any amount of shearing, are perfectly hardy and will grow in any sunny, well-drained position. Three varieties of the Barberry harbor the black rust on wheat. As soon as we had reliable information from good authority that this was a fact we destroyed our entire stock of *B. ilicifolia*, *B. vulgaris* and *B. purpurea* and do not now propagate those varieties.

B. Thunbergii (Thunberg's Barberry)—From Japan. A pretty species of dwarf habit, small foliage, changing to a beautiful coppery red in autumn. Valuable as an ornamental hedge.

BOX-BARBERRY

This new Barberry solves the problem of the garden border for northern gardens.

Box-Barberry—A dwarf, upright form of the popular *B. Thunbergii*. It is perfectly hardy, thriving wherever the Barberry grows. It does not carry wheat-rust. It lends itself most happily to low edgings for formal gardens when set from 4 to 6 inches apart and kept trimmed. Also makes a beautiful low hedge when set 6 to 12 inches apart. The foliage is a pleasing light green, changing in autumn to rich reds and yellows.

BUDDLEI—Butterfly Bush

One of the most admired shrubs. Of quick, bushy growth. The lovely bloom spikes appear in July. Bloom radiates a delightful perfume. Freezes down in winter but grows again rapidly each spring, attaining a height of five feet in July.

B. Magnifica—This variety is the hardest for all sections. Flower spikes ten inches in length by three in diameter. Color, deep violet-rose, with a pronounced orange center.

CALYCANTHUS—Carolina Allspice

C. fertilis glaucus—The wood is fragrant, foliage rich; flowers of rare chocolate color, having a peculiarly agreeable odor. Flowers in June and at intervals afterwards.



Here is the *FLOWERING ALMOND*, known as *Amygdalus Communis*. This beautiful shrub is in full bloom before the leaves appear. The flowers are double of rose and white. It is a beautiful shrub and should be in the home grounds of every reader of this catalog.

CARAGANA—Pea Shrub

C. arborescens—Makes a very handsome show in the late spring with its compound, bright green foliage and numerous small clusters of bright yellow flowers. Perfectly hardy and valuable for either group or individual planting.

CEANOTHUS

C. americanus (New Jersey Tea or Red Root)—A low-growing shrub; flowers white in June. Valuable for shady places.

CEPHALANTHUS—Button Bush

C. occidentalis—A tall-growing native shrub with globular heads of white flowers in July.

CHIONANTHUS—Fringe Tree

C. virginica (White Fringe Tree)—A small, tree-like shrub, much admired for its curious fringe or hair-like flowers that cover the whole surface in midsummer.

CLETHRA

C. alnifolia (Sweet Pepper Bush)—A native shrub of low and dense growth; leaves abundant and light green; has

SHRUBS (Continued)



BUDDLEI (BUTTERFLY BUSH) (See Page 140)

numerous spikes of small white fragrant flowers. Blooms abundantly in July.

COLUTEA

- C. arborescens* (Bladder Senna) — Of quick growth in any dry, sunny situation, forming graceful clumps of delicate foliage. Its long racemes of yellow and cinnabar-red pea-shaped flowers appear in summer, and are followed by large, showy red seed-pods.

CORNUS—Cornel or Dogwood

Valuable shrubs when planted singly or in groups or masses, some distinguished by their elegantly variegated foliage, others by their bright-colored bark.

- C. alba sibirica* (Red-Branched Dogwood) — Very conspicuous and ornamental in winter, when the bark is blood-red.
- C. amomum* (Silky Dogwood) — Flowers white, fruit blue, branches red and spreading.
- C. elegantissima variegata* — One of the finest variegated shrubs; of rapid growth; the leaves are broadly margined with white, while some are entirely white. Bark bright red in winter.
- C. alba Spaethii* — While the variegation in *elegantissima* is white, in this variety it is pale yellow. One of the finest variegated shrubs.
- C. mascula* (Cornelian Cherry) — A small tree, producing clusters of bright yellow flowers early in spring, before the leaves, followed by red berries.
- C. paniculata* (Gray Dogwood) — Smooth ash-colored bark; pointed leaves, light-green above, whitish beneath; flowers greenish white; fruit white.

- C. sanguinea* (European Red Osier) — Flowers white, fruit black, branches bright red and upright.

- C. stolonifera* (Red Osier Dogwood) — A native species, with smooth slender branches, which are usually red in winter.

- C. var. flaviramea* (Yellow-Branched Dogwood) — Bright yellow bark in winter, particularly effective in shrubberies planted with the Red-Branched Dogwood.

CORYLUS—American Hazel Nut

- C. americana* (American Hazel Nut) — The well-known hazel nut.

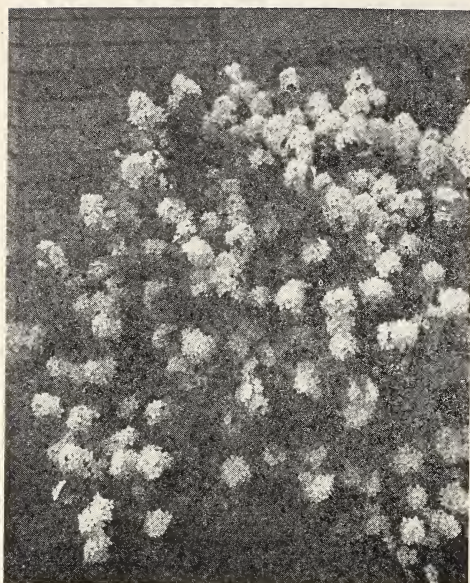
- C. avellana* (European Filbert or Hazel Nut).

- C. avellana atropurpurea* (Purple-Leaved Filbert) — A very conspicuous shrub,



CYDONIA JAPONICA (Page 140)

SHRUBS (Continued)



DEUTZIA CRENATA

with large, dark purple leaves. Distinct and fine.

CYDONIA—Japan Quince

C. japonica (Pyrus Japonica)—Very early in spring this fine old shrub is completely covered with dazzling scarlet flowers. The leaves are deep green and glossy, the growth tall, bushy, twiggy, with stout branches armed with fierce thorns. The quince-shaped fruits are quite fragrant. It makes a beautiful flowering and defensive hedge; grows naturally 3 to 6 feet high, but bears any amount of shearing.

DESMODIUM

The Desmodium, or, as it is called by some authorities, Lespedeza, is mostly listed as a perennial, as it dies down in winter, but is perfectly hardy. It is valuable for planting in front of shrubbery and its long, drooping racemes of purplish rose flowers are distinctly ornamental.

Desmodium tiliifolia—A large, deciduous shrub of the Himalayas. Valuable in landscape work.

Desmodium bicolor—An erect, shrubby plant, native to the temperate and tropical regions of the Himalayas; 3 foliolate leaves; axillary and terminal racemes of very small red flowers. The pods are usually about one inch long, and are clothed with minute hooked hairs. Valuable in landscape work.

DEUTZIA

No other shrub in the whole list will yield better returns for a minimum of care than the Deutzias. They vary greatly in height and habit, but all have dainty bell or tassel-shaped flowers borne thickly in wreaths along their branches in June. The taller sorts are useful for specimens, groups, and the background of shrubberies; the dwarf for borders or for planting near the house or in front of the piazza.

D. scabra crenata—The beautiful white, single-flowered species growing 6 to 8 feet tall, and a mass of bloom in early June.

D. scabra candidissima—The pure white double flowers in erect panicles 2 to 4 inches long are so perfect in shape that they are frequently used as cut-flowers. The bush is neat and shapely, growing 6 to 8 feet high, and is a handsome addition to any planting.

D. gracilis (Slender-Branched Deutzia)—A neat, dense little bush, rarely over 2 feet high, that blooms in May, wreathing its drooping branches with pure-white flowers. Equally valuable for shrubberies and forcing.



A *Deutzia Gracilis* is shown above. This is known as the slender branched Deutzia. It blooms in May. The flower is pure white. This shrub is a decided acquisition to the planting about any home.

SHRUBS (Continued)



DIERVILLA

- D. gracilis* var. *rosea plena*—Similar to the above but the flowers are double and tinged with soft old rose. Beautiful.
- D. hybrida Lemoinei*—A hybrid obtained by crossing the well-known *Deutzia gracilis* with *Deutzia parviflora*. Flowers pure white, borne on stout branches, which are of upright growth. Habit dwarf and free-flowering.
- D. Lemoinei*—Rarely growing over 3 feet high, with spreading branches, it has bright green leaves 2 to 3 inches long and white flowers grown in large clusters in early summer.
- D. scabra* var. *Pride of Rochester*—A showy, early and large-flowering sort, that blooms in May before the others. Grows 6 to 8 feet tall. The white flowers are large and double, tinted with pink.
- D. scabra*—Flowers bell-shaped, in small bunches; foliage oval, very rough underneath; tall grower.
- D. scabra* var. *rosea pleno*—A strong grower, similar to *D. scabra* but the flowers are tinted rosy white.
- D. Deutzia scabra Watererii*—Tall grower with beautiful single pink flowers in June.

DIERVILLA—Weigela

Another valuable genus from Japan. Shrubs of erect habit while young, but gradually spreading and drooping as they acquire age. They produce in June and July superb large trumpet-shaped flowers of all shades and colors from pure white to red. In borders and groups of trees they are very effective and for mar-

gins the variegated-leaved varieties are admirably suited, their gay-colored foliage contrasting finely with the green of other shrubs. They flower after the Lilacs in June.

D. (W.) Abel Carrier (Hybrid)—Flowers, rose carmine, purple carmine in bud, with yellow spot in throat.

D. (W.) amabilis—A beautiful distinct pink-flowering sort of this valuable shrub.

D. (W.) candida (White-Flowered Weigela)—Of vigorous habit, an erect grower, becoming in time a large-sized shrub; flowers pure white and produced in great profusion in June and the plants continue to bloom through the summer, even until autumn. A valuable variety.

D. (W.) Coquette (Hybrid)—Flowers very large deep pink.

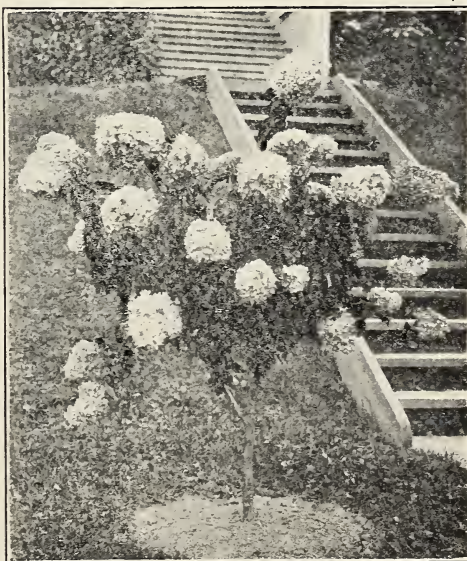
D. (W.) Desboisii—One of the best. Flowers a clear very deep rose-pink.

D. var. Eva Rathke—Flowers brilliant crimson; a beautiful, distinct, clear shade.

D. (W.) floribunda—A June-flowering variety of tall growth. The flowers are small but numerous and a beautiful crimson when fully open.

D. (W.) Hendersoni (Hybrid)—Flowers light crimson.

D. (W.) rosea (Rose-Colored Weigela)—An elegant shrub, with fine rose-colored flowers; of erect, compact growth; blossoms in June.



TREE HYDRANGEA (Page 147)

SHRUBS (Continued)

D. var. rosea nana variegata (Variegated-Leaved Dwarf Weigela)—Of dwarf habit and possessing clearly defined, silvery variegated leaves; flowers delicate rose pink. It stands the sun well and is one of the best dwarf variegated-leaved shrubs.

D. (W.) Steltzneri—Another variety of this well-known shrub with dark red flowers.

D. (W.) Van Houttei—Flowers broad and flat. Deep rosy red with orange markings.

ELAEAGNUS—Oleaster

E. agustifolia (Russian Oleaster)—Silvery green foliage, yellow flowers and fruit, make this tall shrub desirable for borders.

E. longipes (Japan Oleaster)—In July the plant is covered with bright red berries of large size and edible, the flavor being pungent and agreeable. Laden with fruit the bush is highly ornamental, and the fact that the leaves remain fresh till late in the autumn gives it additional value for garden decoration.

EUONYMUS

Strawberry or Spindle Tree

The Euonymus are all highly ornamental in autumn, when covered with showy fruit.

E. alatus (Cork-Barked Euonymus)—Of dwarf, compact habit; wood very corky; leaves small; fruit red. Very beautiful in autumn when foliage turns bright red.

E. americanus (American Burning Bush)—A tall-growing shrub with larger leaves than the European, turning to scarlet in autumn; fruit large, dark red.

E. europaeus (European Euonymus)—Forms a tree sometimes 30 feet in height. Fruit white and rose-colored.

EXOCHORDA—Pearl Bush

E. grandiflora—From North China. A fine shrub, producing large white flowers in May. Difficult to propagate and always scarce. One of the finest shrubs of its season.

FORSYTHIA—Golden Bell

These splendid old shrubs, growing 8 to 10 feet in good soil, light up the garden with glinting masses of yellow very early in spring, before the leaves appear, and usually blooming with the Crocuses, which are frequently planted in front of and beneath them. All are of strong

growth, entirely hardy with curvy branches that sometimes root at their tips; stems and leaves retain their color until late fall.

F. suspensa Fortunei—Handsome, erect form; very vigorous grower and very prolific bloomer. Flowers golden and continue a long time. It is a conspicuous object in shrubbery.

F. suspensa Fortunei var. aurea variegata—Similar to above but the leaves are beautifully variegated. Very attractive when massed in front of evergreens.

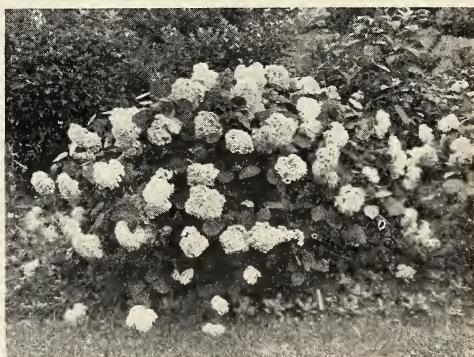
F. intermedia—One of the most floriferous, with slender, arching branches and dark green, lustrous leaves. It blooms so early that it is frequently covered with its bright golden flowers while the ground is covered with snow and is one of the very first promises of the bright and beautiful spring days to follow.

F. suspensa—Long, curving branches, used for covering arches and trellises.

F. viridissima—The flowers of this variety are a little deeper yellow than in other sorts and are sometimes twisted. The bush is not quite so hardy as the others of the species and it is best to give it some slight protection in winter in northern latitudes.

HAMAMELIS—Witch Hazel

H. virginiana—Valuable because its fringe-like yellow flowers open so late in fall—often in November—when there are few other blossoms outdoors anywhere. Grows 10 to 15 feet tall, with fine leaves that color to yellow, orange or purple in fall and drop before the bright yellow flowers with narrow, twisted petals appear, making them quite conspicuous among bare branches. Likes a moist, sandy, or peaty soil and partial shade.



HYDRANGAEA ARBORESCENS STERILIS
(Hydrangea Hills of Snow) (Page 145)



Part of a block of *Hydrangea paniculata grandiflora*. Note the immense size of bloom. Our *Hydrangea* are of unusual breeding. The flowers are of large size and very beautiful throughout the autumn months.

SHRUBS (Continued)

HIBISCUS—Althea, Rose of Sharon

The Altheas are fine free-growing flowering shrubs, of very easy cultivation, desirable on account of flowering in August and September, when nearly all other trees and shrubs are out of bloom. Tender in some localities.

We can furnish these by color in blue, pink, pink and white, purple, red, white, white with crimson center and the bi-color or white with red markings or the following named varieties. Order by color or name the special "named variety" you want.

H. var. Boile de Few—Flowers double and of very deep violet pink.

H. var. Jeanne d'Arc—Flowers pure white, double; plant a strong grower.

H. var. Leopoldii flore pleno—Large flowers, very double, flesh color, shaded rose; fine.

H. syriacus var. flore pleno fol. var. (Variegated-Leaved, Double Purple-Flowered Althea)—Foliage finely marked with light yellow, double purple flowers. One of the finest variegated-leaved shrubs.

H. var. variegatis flore pleno (Double Variegated or Painted Lady Althea)—White with purple outside; petals shaded pink.

We can also furnish this shrub in tree form if desired. Order by color.

HIPPOPHAE—Sea Buckthorn

H. rhamnoides—Foliage grayish white; quite attractive. Succeeds particularly well near salt water.

HYDRANGEA

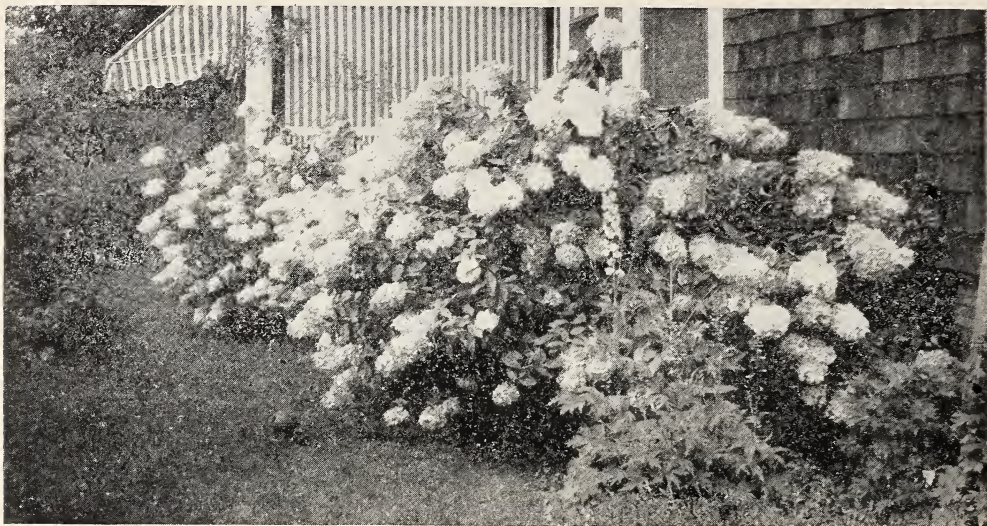
H. arborescens sterilis (Hills of Snow)

—This superb new *Hydrangea* is absolutely hardy and, moreover, of easy culture, and is an exceedingly prolific bloomer; as high as 125 perfect blossoms with an average of six inches in diameter have been found on a single plant at one time. Color is pure white, which is retained usually from four to



HYDRANGEA PANICULATA GRANDIFLORA

A fine specimen of the *Hydrangea paniculata grandiflora*. These are exceedingly beautiful in early and late fall.



HYDRANGEA PANICULATA GRANDIFLORA

SHRUBS (Continued)

five weeks. The flower clusters remain intact long after the leaves have fallen and frequently throughout the following winter.

H. paniculata grandiflora (Panicled Hardy Hydrangea)—Familiar to almost everyone as the most conspicuous shrub in any collection during August and September. Its massive plumes of white

flowers bend the branches with their weight, changing finally to pink and bronzy green. The shrub shows best to advantage when grown in rich beds or masses and cut back severely every spring before growth starts. Grown in this way, it produces fewer flower-heads but much finer ones. Sometimes grown in tree form, making a strong,



This picture nicely illustrates what changes can be made in beautifying a factory building. Not a dull, dingy wall and naked grounds, but a place surrounded with life and beauty, a place where the workmen feel contented and the employer has a pride in his surroundings. It is a moral and mental uplift to all concerned. The neatness of surroundings as exemplified by factory owners has much to do with the contentment and service of the employed.



AMOOR RIVER PRIVET

A close-up view of Amoor River Privet. These are two year plants ready to dig and ship. These have not been pruned, or trimmed—simply their natural growth.

This variety and Ibota are absolutely hardy. California Privet is not hardy and planters in the north should use either Amoor River or Ibota instead.

SHRUBS (Continued)

vigorous bush 6 to 8 feet high. Needs close pruning and good fertilizing in order to produce choice flowers.

H. Tree Form (Tree Hydrangea)—A splendid specialty. Free flowering. Grows into fine tree shape, often to 7 to 8 feet in height. Imported from Holland. Very fine.

HYPERICUM—St. John's-Wort

H. Henryi—This variety is hardier than other forms of this species, of more vigorous growth and is the best of the Hypericums. Flowers yellow.

H. moserianum (Gold Flower)—A showy, half-pendulous shrub, growing only a foot or two in height and fine for massing or for growing in perennial borders, or in front of high shrubbery. Its glossy, bright yellow flowers are two or more inches in diameter and tufted with masses of yellow stamens, blooming in midsummer. May be grown in shaded places where few other plants will thrive.

KALMIA—Laurel

K. latifolia (American Laurel)—A beautiful native shrub of easiest culture. Particularly good along streams. Flowers rose to white in May and June.

KERRIA—Corchorus

K. japonica (Japan Corchorus)—A slender, green-branched shrub, with globular yellow flowers from July to October.

K. var. flore pleno (Double-Flowered Corchorus)—Of medium size; double yellow flowers.

K. var. argentea variegata (Silver Variegated-Leaved Corchorus)—A dwarf variety from Japan, with small green foliage edged with white; very slender grower. One of the prettiest dwarf shrubs.

LIGUSTRUM—Privet

Besides being one of our best hedge plants, the different species of the Privet form interesting groups on the lawn. They are almost evergreen, and of dense, shapely habit. Their white flowers grow in pretty sprays, are fragrant, and followed by berries of different colors.

L. amurense (Amoor River Privet)—The Chinese variety, hardier than the others, growing 8 to 12 feet high, with dark green leaves which persist almost

SHRUBS (Continued)



PHILADELPHUS
(SYRINGA OR MOCK ORANGE) (Page 150)

through the winter. Evergreen in the south. Bears erect panicles of handsome white flowers in June, followed by black berries. This is the best of all plants for hedge purposes. Hardy in any location.

L. ibota—A fine and hardy border shrub, of spreading habit, with curving branches and leaves of grayish green. Pure white flowers in June followed by bluish-black seeds. Considered among the hardiest of privet varieties. Makes an excellent hedge.

L. ovalifolium (California Privet)—A species of unusual beauty that has become the most popular of all hedge plants. Its shining leaves give it value for porch and terrace decoration when grown in standard form. Can be sheared to any desired shape.

L. regelianum—The horizontal, sometimes drooping branches, are distinctly beautiful. Has longer and narrower leaves than other varieties. This is one of the best of privets. Absolutely hardy and graceful. Berries remain on all winter and are very attractive.

L. vulgare (Common Privet)—A good hedge plant with narrow dull-green foliage and quite showy flowers of white. Blooms June and July. Clusters of black berries follow the bloom which adhere to the shrub all winter.

LONICERA—Upright Honeysuckle

The following species and varieties are of erect, shrubby habit. Valuable for their handsome flowers and showy fruit. The climbing sorts will be found under the head of Climbing Vines.

L. spinosa Alberti—Violet bell-shaped flowers; leaves narrow. A very hardy variety, somewhat creeping.

L. bella albida—White flowers; showy red fruit in great profusion; fine.

L. fragrantissima (Fragrant Upright Honeysuckle)—A spreading shrub with deep green foliage and very fragrant small flowers, which appear before the leaves, foliage almost evergreen; most desirable.

L. Morrowii—A fine variety from Japan; valuable for its handsome red fruit.

L. tatarica (Tartarian Honeysuckle)—Pink flowers which contrast beautifully with the foliage. This and *grandiflora* appear to fine advantage planted together. June.

L. tatarica var. *alba* (White Tartarian Honeysuckle)—Forms a high bush, with creamy-white, fragrant flowers. May and June.

L. tatarica var. *rubra*—Similar to above but with deep rose-pink flowers in early summer.

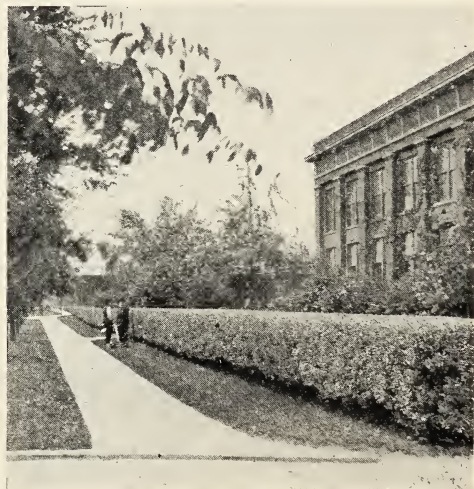
L. tatarica var. *grandiflora* (Pink-Flowered Honeysuckle)—A beautiful shrub, very vigorous, and producing large, bright-red flowers striped with white, in June.

MACLURA

M. pomifera (Osage Orange)—Chiefly grown as a hedge plant. Also planted as an ornamental tree for its handsome bright-green foliage and the conspicuous orange-like fruit.

PACHYSANDRA

Pachysandra terminalis (Japanese Spurge)—A low evergreen 6 to 8 inches high. Used largely as a ground cover in evergreen and shrub plantings.



AMoor RIVER PRIVET (Page 147)



CALIFORNIA PRIVET

A block of California Privet one year old. Note the growth—how regular and thrifty. Buy of the grower. (Page 148.)

SHRUBS (Continued)

PHILADELPHUS

Syringa or Mock Orange

The Syringa is an invaluable shrub. Of vigorous habit, very hardy, with large, handsome foliage and beautiful white flowers, produced in the greatest profusion at the blossoming season. It merits a prominent place in all collections of shrubbery. Most of the varieties, except those

of dwarf habit, form large-sized shrubs, twelve to fifteen feet high. They can of course be kept smaller by pruning. The dwarf sorts are such pretty, compact plants as to be very useful where small shrubs are desired. All of the varieties flower in June, after the Weigela. By planting the late-flowering sorts, the season may be considerably extended.



SPIREA VAN HOUTEI (Page 152)

SHRUBS (Continued)



RHUS COTINUS
(PURPLE FRINGE OR SMOKE TREE)
(Page 151)

Ph. coronarius (Garland Syringa)—A well-known shrub, with pure white highly scented flowers. One of the first to flower.

Ph. coronarius fol. aureis (Golden Syringa)—A compact shrub with very brilliant yellow foliage in the spring. Holds its color well. Good for contrast with dark-leaved shrubs. Flowers white in May and June.

Ph. coronarius Var. flore pleno (Double-Flowered Syringa)—A variety with partially double, very fragrant flowers.

Ph. Lewisii (Gordon's Syringa)—A vigorous grower and profuse bloomer; flowers slightly fragrant, blooms late, and valuable on that account.

Ph. grandiflorus (Large-Flowered Syringa)—Has very showy large flowers, slightly fragrant; branches somewhat straggling.

Ph. Lemoinei (Lemoine's Syringa)—Branches slender and arching. Flowers double in large racemes, very sweet-scented. One of the best dwarf spring-flowering shrubs. Color of bloom white, and time of bloom May.

Ph. Lemoinei var. Avalanche—Very erect in growth. Leaves small and narrow. Branches slender and covered with showy white flowers in May and June.

Ph. nivalis—The stamens of this variety are cream-colored, thus rendering the whole flower snowy white. Flowers inodorous.

POTENTILLA

Potentilla fruticosa (Cinquefoil)—A low shrub with yellow flowers in June. A handsome and distinct variety.

PRUNUS—Plum and Almond

P. japonica flore plena alba (Dwarf Double White-Flowered Almond)—Produces beautiful double white flowers in May.

P. japonica flore plena rubra (Dwarf Double Red-Flowered Almond)—A beautiful small shrub, bearing in May, before the leaves appear, an abundance of small, double, rose-like flowers, closely set upon the twigs.

P. cerasifera Pissardi (Purple-Leaved Plum)—The finest purple-leaved small tree or shrub. The leaves when young are lustrous crimson, changing to a dark purple, and retain this beautiful tint till they drop late in autumn; no other purple-leaved tree or shrub retains its color like this. Flowers small, white, single, covering the tree.

P. triloba (Double-Flowered Plum)—Native of China. Flowers double, of a delicate pink, upwards of an inch in diameter, thickly set on the long, slender branches; flowers in May.

PTELEA

Hop Tree, or Shrubby Trefoil

P. trifoliata—A large shrub or small tree of rapid growth and robust habit. Fruit winged, and in clusters; flowers in June.

RHAMNUS—Buckthorn

R. alpina (Alpine Buckthorn)—Of upright growth, attaining about six feet. Desirable on account of its handsome foliage, which is of a dull, rich green color.

R. cathartica (Purging Buckthorn)—A fine, robust, hardy shrub, of European origin, with dark green foliage, white flowers and small black fruit.

R. frangula—Dense shrub with beautiful tinted foliage in Fall and red and black berries in September.

RHODOTYPUS—White Kerria

R. kerrioides—From Japan. A very ornamental shrub of medium size, with handsome foliage and large, single, white flowers in the latter part of May, succeeded by numerous small fruit.

RHUS—Sumach

R. aromatica (Fragrant Sumach)—A native variety, exhaling a strong odor. Flowers greenish white; leaves lobed.

SHRUBS (Continued)

R. copallina (Dwarf Sumach)—Shining Sumach. Beautiful shining green foliage, changing to rich crimson in autumn. Greenish-yellow flowers in August.

R. Cotinus (Purple Fringe or Smoke Tree)—From the south of Europe. A much-admired shrub for its curious fringe, or hair-like flowers, that cover the whole surface of the plant in mid-summer. It grows 10 to 12 feet high and spreads so as to require considerable space.

R. glabra (Smooth Sumach)—Very effective in autumn with its crimson seeds and foliage.

R. glabra *Var. laciniata* (Cut-Leaved Sumach)—A very striking plant, of moderate size, with deeply cut leaves, resembling fern leaves; dark green above and glaucous below, and turning to a rich red in autumn.

R. typhina (Staghorn Sumach)—A large shrub or tree, brilliant foliage and scarlet fruit in autumn.

R. typhina laciniata (Cut-leaved Staghorn Sumach)—A picturesque form with handsome leaves and deeply cut leaflets.

RIBES—Currant

The flowering currants are gay, beautiful shrubs in early spring and of the easiest culture.

R. aureum (Yellow-Flowered or Missouri Currant)—A native species with glabrous, shining leaves and yellow flowers.

R. Gordonianum—Flowers large, of purple-rose. Blooms in May, followed by blue-black fruit. Leaves dark green, 2 to 3 inches across. A useful and attractive shrub.

R. sanguineum (Crimson-Flowered Currant)—An American species with deep red flowers, produced in great abundance in early spring.

ROBINIA—Rose Acacia

R. hispida (Rose Acacia)—A pretty low shrub with showy rose-colored flowers borne in loose clusters in May and June. Good in masses and on dry banks. As it spreads from its roots like the raspberry it should not be planted where it will interfere with other shrubs.

ROSA RUGOSA

This type of the Rose family is much used in landscape work. It is perfectly hardy, its growth upright. Height about six feet. Its leaves are a dark, lustrous green and it is not

annoyed by insect pests. Its flowers are followed by brilliant red fruit which gives it a peculiar charm in late fall and early winter. It is valuable for hedges and borders. Refer also to matter under Roses on page 171 for Hybrids of *Rosa Rugosa* for such varieties as Hansa, New Century, Sir Thomas Lipton, etc.

Var. alba—White-flowered.

Var. rosea—Rosy-pink.

Var. rubra—Red.

ROSA RUBIGNOSA

This type of Rose is grown more for its fragrance than its beauty. Dense growing; height six feet. Very hardy and is used extensively in landscape work. See matter under Roses.

ROSA SETIGERA

Of the Rose family but really a beautiful shrub. Valuable in massed plantings in landscape work. Refer to matter under Roses.

ROSA RUBRIFOLIA

Used to secure color effect in landscape work. The leaves are blue-green, deeply tinged with purplish-red. Fruit scarlet, which adds much to its attractiveness in early winter. It is a good substitute for the purple barberry.

RUBUS

R. odoratus (Flowering Raspberry)—A strong-growing plant from 3 to 6 feet high. Leaves very large. Flowers one-half inch in diameter, of rose-purple, from several to many in the cluster. Prefers rich, shady situations. It is beautiful in a foliage mass, spreading rapidly and soon overtops weaker plants. Valuable for landscape work and effects.

SAMBUCUS—Elder

These are showy, rapid-growing, large shrubs, quite ornamental in flowers, fruit and foliage. They blossom in June. The plants should be kept in good shape by a frequent use of the pruning knife.

S. canadensis (Common American Elder)—Broad panicles of white flowers in June; reddish-purple berries in autumn. A well-known native shrub.

S. var. acutiloba (Cut-Leaved American Elder)—A beautiful variety with deeply and delicately cut dark-green foliage. It is valuable on account of its beauty, hardiness and rapid growth and the ease with which it is trans-

SHRUBS (Continued)

planted. We consider it one of the best cut-leaved shrubs in cultivation.

S. nigra (Black-Berried Elder)—A native of Europe, of medium size, with purplish-black berries in September.

S. nigra var. *aurea* (Golden Elder)—A handsome variety, with golden-yellow foliage. A valuable plant for enlivening shrubberies.

S. nigra var. *variegata* (Variegated Elder)—Leaves are quaintly mottled with white and yellow. Flowers and growth like the type.

S. nigra var. *laciniata* (Cut-Leaved European Elder)—A handsome and distinct form, the leaves of which are regularly and finely dissected.

S. racemosa, *Syn. Pubens* (Red-Berried Elder)—Panicles of white flowers in spring, followed by bright-red berries.

SPIREA

This shrub is adapted for banking against buildings, porches or formal effect. Needs two prunings during the summer. Very effective.

S. Anthony Waterer—A new form of better habit than the type, with larger corymbs of rosy crimson.

S. arguta (Snow Garland)—A slender dwarf 3 to 5 feet high, with branches a snowy mass of clear white flowers in early May.

S. atrosanguinea—Dark red or rose colored flowers blooming in June and July.

S. aurea—Tall-growing shrub. The leaves are bright yellow in spring, gradually changing to golden brown in fall. Flowers double white.

S. Billardi—A narrow dense shrub, 6 feet high, with dense panicles of rich-pink flowers in July and August, also in fall.

S. Bethlehemensis—A Hybrid similar to *S. Billardi* in flower and other characteristics but better.

S. Bumalda—Compact, low-growing, with good dense foliage sometimes variegated when young. Flowers in showy flat clusters borne on erect stems. Excellent in masses in front of taller shrubs. If the flowers are cut when they fade it will continue to bloom until frost. Flowers pink in July and August.

S. callosa alba (*S. japonica*, of some)—Of dwarf, compact growth, 4 feet high with upright branches and bluish-green foliage; crowded with large, flat clusters of white flowers nearly all summer.

S. callosa japonica—Pink-flowered spirea of compact growth about 4 feet high. Flowers small and pink. Blooms nearly all summer.

S. Douglasi—Upright in growth to 5 to 7 feet, with reddish-brown branches and narrow, oblong leaves. Bears spikes of beautiful, deep rose-colored flowers in July and August.

Spirea frobelli—A taller form of *Spirea* than the *Anthony Waterer*, with broader leaves, having bright crimson flowers.

S. Fortunei—Has large panicles of deep rosy blossoms all summer. One of the finest spires.

S. prunifolia, flore pleno (Bridal Wreath)—Among the earliest of the double spires to bloom, very graceful and plume-like in effect, branches being covered thickly almost their whole length with small, double white flowers and sweeping outward in gentle curves.

S. Reevesiana (Reeves' Double Spirea)—Tall and graceful, 5 to 8 feet high, with dark, bluish-green lance-like foliage and large, pure white double flowers in May and June.

S. sorbaria sorbifolia—A distinct species with large compound leaves and large heads of white flowers.

S. Thunbergii (Thunberg's Spirea)—Distinct and most attractive at all seasons, with feathery masses of pure white flowers in early spring; in autumn its narrow leaves change to bright red and orange. Forms a dense, feathery bush.

S. Van Houttei (Van Houtte's Spirea)—One of the most charming and beautiful of the spires, having pure white flowers in clusters or panicles about an inch in diameter. Astonishingly pro-



SPIREA (ANTHONY WATERER)

SHRUBS (Continued)



SPIREA THUNBERGII
(THUNBERG'S SPIREA) (Page 152)

fuse in bloom and plants remarkably vigorous and hardy. A grand shrub for planting singly or in groups or as a banking against buildings. Makes one of the best shrub hedges.

STEPHANANDRA

- S. flexuosa*—A beautiful low shrub with very ornamental, deep green, dense foliage. Branches spreading and drooping. Flowers insignificant, white in July. In exposed places it kills to the ground in winter but regains its growth quickly in the spring.

SYMPHORICARPUS

- S. racemosus* (Snowberry White)—A well-known shrub with small pink flowers and large white berries that will remain on the plant through part of the winter. The white berries are the most attractive characteristic of the shrub.
- S. vulgaris* (Snowberry Red, or Indian Currant)—Similar to the Snowberry White, except that the berries are smaller and red in color. The habit is of slightly drooping nature and of vigorous growth. Succeed in shady places.

SYRINGA—Lilac

Well-known beautiful shrubs, indispensable in every collection. They flower in May.

- S. chinensis* var. *alba* (Rothomagensis)—A vigorous grower; foliage small and narrow; flowers white with a bluish tint. Fragrant and free flowering.
- S. chinensis* var. *rubra* (Rothomagensis) (Rouen Lilac)—A distinct hybrid variety, with reddish flowers; panicles of great size and very abundant. One of the finest.
- S. japonica*—A species from Japan, becoming a good-sized tree. Foliage dark green, flossy, leathery; flowers creamy white, odorless, in great pan-

icles. A month later than other Lilacs.

- S. Josikea* (Hungarian Lilac)—A fine, distinct species, of tree-like growth, with dark, shining leaves and purple flowers in June, after the other Lilacs have done flowering.

- S. persica* (Persian Lilac)—From 4 to 6 feet high, with small foliage and bright purple flowers.

- S. persica* var. *alba*—Similar to *S. persica* but with white flowers.

- S. persica* var. *rosea*—The pink-flowered *S. persica*.

- S. villosa*—A species from Japan. Large branching panicles; flowers light purple in bud, white when open; fragrant. Especially valuable, as its flowers appear two weeks after those of other Lilacs.

- S. villosa* var. *rosea*—The Japanese lilac with flowers of a light rosy-pink.

SINGLE-FLOWERED VARIETIES OF LILACS

- S. vulgaris* (Common Lilac)—Bluish-purple flowers. A standard variety. Always good.

- S. var. alba* (Common White Lilac)—Cream-colored flowers.

- S. var. cerulea* (Common Lilac)—Single blue flowers.

- S. var. purpurea* (Common Lilac)—Single. Purple to red.

- S. var. Charles X.*—A strong, rapid-growing variety, with large, shining leaves; trusses large, rather loose, reddish purple.

- S. var. Congo*—Flowers large, wine-red. Very valuable.

- S. var. Ludwig Spaeth*—Panicle long; individual flowers large, single; dark purplish red; distinct; superb.

- S. var. Marie Legrave*—Large panicles of white flowers. Valuable for forcing. One of the finest white Lilacs.

- S. van. Rubra de Morley*—Single light red.

- S. var. Volcan*—Flowers large, ruby red.

DOUBLE-FLOWERED VARIETIES OF LILACS

- S. var. Alfonse LeValle*—Double flowers of bluish lilac.

- S. val. Belle de Nancy*—Flowers double pink with white center.

- S. var. Chas. Joly*—Flowers double, of dark purplish red.

- S. var. Michael Buchner*—Flowers double, of pale lilac.

- S. var. President Grevy*—Flowers double, of dark blue.



SYRINGA (LILAC)
"President Grevy" (Page 153)

SHRUBS (Continued)

TAMARIX

The Tamarisks are hardy shrubs of strong but slender, upright, spreading growth. Their foliage is as light and feathery as asparagus, and they are valuable for planting near the seaside.

T. africana (*T. parviflora*)—Bright pink flowers in slender racemes in April and May. Shrub is 15 feet tall and is very showy with its reddish bark.

T. chinensis—Flowers pink, in large, loose, usually nodding panicles; often 15 feet high.

T. gallica—Delicate pink or white flowers in slender-panicked racemes in spring or early summer; leaves bluish green. Grows to 15 feet high.

T. gallica indica—Pink flowers in longer, more wand-like sprays. Foliage in dull green.

T. hispida—A pink flowered variety. Blooms in August and September. Desirable.

VIBURNUM—Arrow Wood

The Viburnums are our most use-

ful shrubs, being hardy, of good habit, bearing handsome flowers in summer, followed with showy fruit.

V. acerifolium (Maple-Leaved Viburnum)—Foliage resembles the red maple. Flowers yellow-white, showy, in flat heads. Fruit almost black. Blooms May. Good for low places or under trees.

V. alnifolium (Hobble Bush)—A wide-spreading shrub with wide rough leaves, often more than 6 inches across. Flowers white, borne in flat heads about 4 inches across. Fruit dark purple, showy.

V. Carlesii—An early-flowering Viburnum of fine habit, bearing deliciously fragrant white flowers in May, being one of the first shrubs to flower. We consider this one of the most important introductions of recent years.

V. cassinoides—Cymes of white flowers in June. Black berries in autumn. Handsome foliage.

V. dentatum (Dentated-Leaved Viburnum. Arrow Wood)—Flowers greenish white. One of the best shrubs for massing for foliage effect.

SHRUBS (Continued)

- V. Lantana* (Early White Lantana-Leaved Viburnum, Wayfaring Tree) — A large, robust shrub, with soft, heavy leaves and large clusters of white flowers in May, succeeded by red fruit; retains its foliage very late.
- V. Lentago* (Sheepberry) — Flowers creamy white, very fragrant; foliage a light glossy green.
- V. molle* — A robust-growing shrub, with cymes of white flowers, which appear later than those of the other Viburnums.
- V. opulus* (High Bush Cranberry) — Both ornamental and useful. Its red berries, resembling cranberries, esteemed by many, hang until destroyed by frost late in the fall.
- V. opulus nana* — A very dwarf compact form of *Viburnum opulus*, seldom growing over one foot high. We predict that this shrub will soon be exceedingly popular.
- V. opulus sterile* (Guelder Rose, Common Snowball) — A well-known, favorite shrub, of large size, with globular clusters of pure white sterile flowers the latter part of May.
- V. prunifolium* (Plum-Leaved Viburnum, Black Haw) — Has smooth, glossy foliage and white flowers in May and June.
- V. Sieboldii* — Large, long, thick leaves of a glossy green color.
- V. tomentosum* — The single form of the beautiful Japan Snowball, *Viburnum Plicatum*; flowers pure white, borne along the branches in flat cymes, in the greatest profusion, early in June. Perfectly hardy, vigorous and free-blooming. Very desirable.
- V. tomentosum plicatum* (Plaited-Leaved

Viburnum, Japan Snowball) — From North China, of moderate growth; handsome plicated leaves, globular heads of pure white neutral flowers early in June. It surpasses the Common Snowball in several respects. Its habit is better, foliage much handsomer, flowers whiter and more delicate. One of the most valuable flowering shrubs.

WEIGELA (See Diervilla)



VIBURNUM OPULUS STERILE
(COMMON SNOWBALL)

The Elm is the most adaptable of all trees for shade and ornamental purposes.

Climbing Vines

NOTHING can be used which will soften the harsh lines of architecture like well chosen vines.

There are many varieties of these which may be used for different purposes, that will enable the home-owner to embellish the beauty of his home, to screen barren walls, to hide fences—to drape rockeries and trellises. A home-like charm can be secured in no other way so easily, as by the proper use of vines.

If you wish specific advice on kinds to plant for any particular purpose write us for information which will be gladly given.



LONICERA HALLEANA
(HALL'S JAPAN HONEYSUCKLE) (Page 158)

CLIMBING VINES (Continued)



ARISTOLOCHIA SIPHO
(DUTCHMAN'S PIPE)

AKEBIA

- A. quinata*—A beautiful, hardy Japanese vine with unique foliage and chocolate-purple flowers of delightful fragrance in large clusters. The foliage is never attacked by insects.

AMPELOPSIS

- A. quinquefolia* (American Ivy or Virginia Creeper)—Rich crimson in autumn; a very rapid grower. One of the finest vines for covering walls, verandas, trunks of trees; affords shade quickly.

- A. quinquefolia Englemannii*—A splendid climber, grows 6 to 10 feet in a season. This variety has become very popular on account of its ability to cling to walls, etc., without wire trellis.

- A. tricuspidata Veitchii* (Japan Ivy)—A beautiful hardy Japanese species. One of the finest climbers for covering walls, as it clings firmly to the smoothest surface, covering it evenly with overlapping leaves which form a perfect mass of foliage. The color is a fresh deep green in summer, changing to bright shades of crimson and yellow in autumn. When once established it is quite hardy. Give some protection the first year.

- A. tricuspidata Lowii*—Beautifully cut leaves, apple green turn in autumn to bright red hues. The young growths cling closely and give a very lacy effect. Has a peculiarity of not clogging the gutter, hangs over in the form of a shower of young growths, which give a splendid effect.

ARISTOLOCHIA

- A. Sipho* (Dutchman's Pipe)—A magnificent hardy vine of rapid growth, with very large heart-shaped leaves and brownish flowers, resembling in shape a miniature pipe. Splendid for archways or verandas, as it is a very rapid grower and forms a dense shade.

CELASTRUS

- C. scandens* (Bittersweet)—A native climber with handsome, glossy foliage and large clusters of beautiful orange-crimson fruits, retained all winter. Very bright in effect and its graceful sprays of berries are charming for winter house decoration.

CLEMATIS

Of all the vines used either for shade or decoration, none can compare with the Clematis in its many varied forms. While the large-flowered kinds are not so good for shade until they attain considerable age their wealth of bloom makes them the grandest embellishments to the porch known. Of the small-flowered varieties, *Paniculata* undoubtedly holds the lead either as a shade producer or for its abundance of bloom. It is a rampant grower in good soil, and the lateness of its bloom, coupled with the exquisite perfume of its flowers, makes it one of the most desirable of all vines.

CLIMBING VINES (Continued)

CLEMATIS (continued)

- C. cerulea* (Common Blue Clematis) — Very fragrant. Flowers reddish, violet blue. Blooms July to September. Should be grown on northern exposure to preserve color of flowers.
- C. coccinea* — Very handsome, bearing small thick bell-shaped flowers of bright coral red in profusion from June until frost.
- C. crisp* — A blue bell shaped variety of Clematis. Hardy and desirable.
- C. Henry* — Very large, fine form; free grower and bloomer; creamy white.
- C. Jackmannii* — Large, intense violet purple; remarkable for its velvety richness; free in growth and an abundant and successive bloomer.
- C. Madam Koster* — Large red, very fine. Best of the red-flowering.
- C. Madam Edouard Andre* — Has been called the Crimson Jackmanni. The plant is a strong, vigorous grower and very free in bloom. Color, a distinct crimson-red. Entirely distinct from all other varieties.
- C. Ramona* — Large flowers of deep sky blue.
- C. paniculata* (Sweet-Scented Japan Clematis) — A Japanese plant possessing unusually attractive merit. A vine of very rapid growth, quickly covering trellises and arbors with handsome, clean, glossy green foliage. The flowers are of medium size, pure white, borne in immense sheets and of a most delicious fragrance. The flowers appear in September at a season when very few other vines are in bloom.

DIOSCOREA—Cinnamon Vine

- D. Divaricata* — The odd and quaint Cinnamon Vine, most conspicuous in fall when small tubers cluster in the axils of its dark, glossy, arrow-shaped leaves. The white flowers are small but fill the air with a delightful cinnamon odor. The beautiful cinnamon vine is one of the most charming of climbers and will quickly cover an arbor, window or veranda with a great profusion of vines and sweet-scented flowers, making it a perfect bower of beauty. The vine is a hardy perennial and once planted will grow for many years and will be a source of constant delight to the possessor. There is nothing which will give a home a more homelike and cozy appearance or be a surer index of refinement and culture than beautiful vines twining about the porch and trellises.

DOLICHOS—Kudzu Vine

- Dolichos thunbergiana* (Japanese Kudzu Vine) — An extremely rapid growing



CLEMATIS PANICULATA

vine, especially desirable for quick effects and useful for hiding unsightly objects. The leaves are large and handsome.

EUONYMUS

- E. radicans* — An evergreen vine; clings to walls after the manner of Ivy. Beautiful.
- E. radicans var. Variegata* — A variety of the above with variegated leaves.
- E. radicans vegeta* — This variety has beautiful glossy green leaves that are broader than other varieties.

HEDERA

- H. helix* — The well-known English Ivy, still the most beautiful covering that can be given to any rough wall or surface. Leaves of rich green. Should be planted on the eastern or northern side of buildings.

LONICERA—Honeysuckle

- L. japonica brachypoda aurea reticulata* (Japan Golden-Leaved Honeysuckle) — A handsome and very desirable variety, with the foliage beautifully netted or variegated with yellow.
- L. japonica Halleana* (Hall's Japan Honeysuckle) — A strong, vigorous, almost evergreen sort with pure white flowers, changing to yellow. Very

CLIMBING VINES (Continued)

fragrant and covered with flowers from July to December; holds its leaves till January. The best bloomer of all.

L. sempervirens (Scarlet Trumpet Honey-suckle)—A strong, rapid grower and produces scarlet inodorous flowers.

L. Periclymenum belgica (Belgian Honey-suckle)—Foliage light green. Flowers showy and fragrant. Good climber. Bloom red-yellow in June and September.

LYCIUM

L. halimifolium (Matrimony Vine)—Sometimes trained as a shrub. Purple flowers and showy fruited. Extra vigorous in growth.

TECOMA—Bignonia, Trumpet Flower

T. Bignonia radicans (American Climbing Trumpet Creeper)—A splendid, hardy, climbing plant, with large, trumpet-shaped scarlet flowers in August.

VINCA—Periwinkle

Vinca minor (Myrtle or Periwinkle)—A

familiar evergreen creeper bearing blue flowers in early spring.

VITIS AESTIVALIS

Vitis aestivalis (Pigeon Grape)—A strong, tall-climbing vine of the native or wild grapes. A marked type readily distinguished from other species by the reddish fuzz of the under side of the leaves.

WISTARIA

W. sinensis (Chinese Wistaria)—One of the most elegant and rapid growing of all climbing plants; attains an immense size, growing at the rate of 15 to 20 feet in a season. Has long pendulous clusters of pale blue flowers in May and June and in autumn.

W. sinensis var. *Alba* (Chinese White Wistaria)—Pure white flowers, beautiful.

W. var. frutescens magnifica—Strong climber. Flowers lilac-purple borne in racemes from 4 to 6 inches long.

The flowering crab apples are covered in the spring with a wealth of fragrant flowers. Planted alone they make attractive specimens—used in the shrubbery border they add variety and beauty.



THE rose, with its delicate perfume, soft rich tints of red, of white, of pink and yellow, with its fragrant, velvety petals has remained in popular favor for centuries and still retains her crown as "Queen of Flowers."

Successful rose growing is largely a matter of how they are grown. If grown in pots in green houses the soft forced growth is not hardy enough to withstand outdoor conditions.

"Bargain counter" roses have been a source of disappointment to many who are still finding out that cheapness does not consist in what you pay, but what you get for what you pay.

Complete directions of much interest to rose growers may be found on pages 37 and 38 of Greening's new Book of Horticulture. Price 50c postpaid, or it will be sent free of charge to all who have bought \$20 worth of stock from us. Ask our salesmen or write direct to us if you want this invaluable book.



Roses

PLANTING

All budded roses should be planted about four inches deeper than the junction of the bud. All suckers growing out of the ground should be removed as soon as seen. Where this is neglected the natural stock will smother the grafted part in a very short time.

PRUNING

This operation is best performed during March. Most roses do better if moderately pruned; some sorts require two-thirds of the past year's growth removed; for others, to remove one-half or one-third is sufficient. All must be more or less pruned when planted—do not neglect this. As a general rule, the more vigorous the variety the less it should be pruned. All weak or decayed wood should be entirely cut out and also any shoots that crowd the plant and prevent free entrance of light and air. Besides spring pruning, many kinds of Hybrid Perpetuals require to be headed back as soon as their first blossoming is over in order to induce a free display of flowers in autumn.

PROTECTION

All the Hybrid Tea and most of the other classes need protection if left out during the winter in this and similar climates; indeed, all roses would be better for a light covering. This may be done by hilling up with earth, or better, by strewing leaves or straw lightly over the plants and securing them with evergreen branches; oftentimes the latter are in themselves sufficient.

SPRAYING ROSES

Of the various insects which attack plant life there are two distinct classes—the “chewing” kind and the “sucking” kind. The chewing insects, such as beetles, worms and caterpillars, can be destroyed by spraying the foliage with a stomach poison like Arsenate of Lead, which kills when it is eaten. But the “sucking” insects—aphides (plant lice), thrips and leaf hoppers—feed by inserting their sharp, slender beaks into the interior of the leaf, blossom or stem. They cannot eat plant tissue and therefore cannot eat poisons. The only way they can be destroyed is by a preparation which kills when it comes in contact with their bodies; in other words, by a “contact” insecticide. The most effective contact insecticide from the standpoint of killing power and safety to foliage are nicotine solutions. To best apply the “contact insecticide,” dipping is recommended. Take a shallow pan filled with the nicotine solution and bend the rose branches over into it holding them there for 10 or 15 seconds. Dipping is considered much more effective than the use of the spray.

We recommend a couple of the best preparations:

“NIKOTIANA”—This mixture is made and sold by the Aphine Manufacturing Company, of Madison, N. J. The manufacturers give the following directions for its use: “Use one ounce (two tablespoons) of ‘Nikotiana’ to two gallons of water. Add one-half ounce of soap (whale or fish oil soap preferred) to each gallon of water. A solution of this strength will prove effective for rose insects.”

“BLACK LEAF 40”—A copyrighted tobacco mixture made and sold by the Kentucky Tobacco Product Company, of Louisville, Ky. One ounce of “Black Leaf 40” will make six gallons of spray mixture and will prove quite satisfactory, as shown by experiments of our own.

ARSENATE OF LEAD AND PARIS GREEN—In using Arsenate of Lead or Paris Green as a remedy for chewing insects such as beetles, green rose worms, caterpillars, etc., the following percentages are recommended:

Arsenate of Lead—Use one-quarter pound of the Arsenate to 5 or 6 gallons of water.

Paris Green (Pure)—Use one-half ounce to 5 gallons of water.

In case only a few plants are to be treated, it is not absolutely necessary to have a sprayer or atomizer. The mixture can be shaken on with a whisk broom, or as stated above, by dipping the branches right into a shallow pan containing the solution.

Either of the materials that we have mentioned will be found cheap and practical. A small atomizer will cost 50 cents to \$1.00.

HYBRID PERPETUAL ROSES

As the name implies, the Hybrid Perpetual Roses are the result of hybridizing. Many new varieties are produced each year. The Hybrid Perpetuals have no rivals and are here given first because of their hardiness and because as a group they are the largest, best known and of the easiest culture. The Hybrid Perpetual Roses can be grown in any warm, sunny spot, sheltered from strong winds, if the soil is a deep, rich loam. A clayey soil is preferable, and as the rose is a gross feeder, an occasional top-dressing of well-rotted manure is beneficial. It is very important in planting roses to set them deeply. After planting the top should be cut off within 3 or 4 inches of the ground. Each year, in the early spring, they should be cut back to within 6 or 8 inches of the ground. Set sufficiently deep, they do not winter kill. The list given comprises the best varieties. Those marked* are the most persistent bloomers.

**Alfred Colomb*—Brilliant carmine-crimson, very large, full and of fine globular form. Very fragrant.

American Beauty—More widely known than any other rose. Color deep pink to carmine cerise. Delightfully fragrant. Valuable for cutting.

Anne de Diesbach—Very fragrant, of a brilliant carmine, blooming over a long period and one of the most serviceable roses. Buds long and pointed. Flowers large and double when fully opened.

Baron de Bonstettin—A dark, velvety crimson rose of delightful fragrance. Flowers large and full. A necessity in every collection.

Baroness Rothschild—Of delicate pink, this popular rose pleases all. Flowers large, symmetrical and cupped in shape. Free bloomer.

Black Prince—A very dark crimson rose of distinctive beauty.

Clio—A satiny, flesh-colored rose with pink center. Fragrance mild and sweet. The Clio is a beauty in all stages of bud and flower.

**Coquette des Blanche*—A snowy-pink rose which blooms in large clusters. Flowers medium size, full and slightly fragrant.

**Coquette des Alps*—A beautiful white rose shaded with pink. An unusually free bloomer.

Duke of Edinburg—Blooms early and the flowers are of a cheerful vermillion, shaded with scarlet. Blooms large and fragrant.

Earl of Dufferin—A rich, velvety crimson, shaded with dark maroon. Beautifully shaped buds borne on long, graceful stems. Very full and double. Free bloomer. Delightfully fragrant. One of the best dark reds.

Eugene Fuerst—A velvety crimson sort that has no superior. This rose should



ANNE DE DIESBACH
(See description on this page)

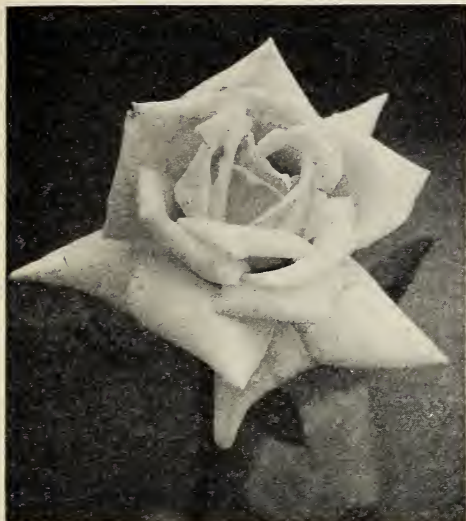
be included in every collection, no matter how limited the selection.

Fisher Holmes—An exceedingly sweet-scented rose of bright velvety crimson or scarlet. Of more than usual beauty in both bud and flower. Considered one of the choicest.

**Frau Karl Druschki*—The finest of white Hybrid Perpetuals. Known by some as the Snow Queen, its billowy white blossoms prove that name well taken. Very fragrant. It never disappoints.

George Arends—This is the pink form of Frau Karl Druschki. Of good, vigorous growth. Flowers bright pink, flowering singly on the point of each shoot.

HYBRID PERPETUAL ROSES (Continued)



KAISERIN AUGUSTA VICTORIA (H. T.)

(See description on page 165)

General Jacquiminot—Everybody who loves roses places this sort high in the list of extra desirable kinds. Of bright crimson and sweet fragrance, it is assured a place in every worth-while collection.

**Hugh Dickson*—This rose is a free and constant bloomer, bearing its beautiful crimson and scarlet flowers on long stems. Of a sweet and gentle fragrance all its own.

**John Hopper*—A rose of medium size with a keen but pleasing fragrance. The color blends from a rosy pink to a carmine.

Jubilee—This rose has been awarded a medal as one of the best shown in fifty years. It varies in color from a flashing red to crimson. Free bloomer of fragrant flowers. Valuable.

Louis Van Houtte—Color red to crimson, but the hues blend with such fitness that it is a distinctive sort which

can't well be described. Very fragrant and desirable.

Mme. Chas. Wood—A fiery scarlet passing to rosy crimson with a maroon shade. Fragrance delightfully sweet. Blooms freely.

Mme. Gabriel Luizet—A silvery pink rose of mild fragrance, large full blooms, unique in shape and color.

Mme. Plantier—A white rose of extreme beauty. Free bloomer, hardy and valuable everywhere, especially for cemeteries, hedges and planting in masses.

Magna Charta—A rosy pink, full rounded, globular rose of marked fragrance. Profuse bloomer. Valuable for cutting. Used extensively by florists for cut flowers.

Margaret Dickson—An actual prize-winner is this white sort with rosy, flesh-colored center. If only half a dozen roses are bought, this variety should be included.

Marshall P. Wilder—Bright scarlet-crimson in color, flowers full, round and extra large. Very fragrant. Desirable in any collection.

**Mrs. John Laing*—Softest and sweetest of pink is this rose. Very fragrant, too, and the blooms, large and double, borne on long stems. Free bloomer.

Mrs. R. G. Sharman Crawford—Received the Gold Medal for merit of the National Rose Society and if you know this rose you will agree it was most worthily bestowed. Of deep rosy pink, blooms large and perfect with delightful fragrance.

**Paul Neyron*—The largest flowered rose, blooming freely of a clear pink shading to rose. Fragrant, beautiful and massive. Considered one of the six best roses for outdoor planting.

Prince Camille de Rohan—One of the darkest roses, blood-red and maroon. Fragrant and wholly delightful. A favorite in all collections.

Ulrich Brunner—Of a lively, pleasing, light distinctive red all its own. Flowers borne on long stems. Very fragrant, full and graceful. One of the most popular.

What is more beautiful than a well-grown rose?



Any home-owner who loves flowers can arrange to have an arbor equally effective as the one shown above. The rose is the new *Climbing American Beauty*, but any one of the climbers or ramblers may be used if they are preferred. (See page 168.)

HYBRID TEA ROSES

The Hybrid Teas rank next in importance to the Hybrid Perpetuals as a class or group and are the result of crossing the Hybrid Perpetuals with the Tea Roses. The Hybrid Teas are the freest and most continuous flowering of all the roses. They are valued because of their delightful fragrance and constant blooming. While they are comparatively tender, they can be safely wintered if covered carefully as per the instructions given on care of Roses in this book.

Betty—A coppery rose overspread with golden yellow. Perfume as pleasing as its colors. Both bud and flower beautiful. A constant bloomer.

Caroline Testout—A satiny rose in color, of sweet perfume and of marvelous beauty. Very popular.

Chateau de Clos Vougeat—An ideal rose of dazzling color, being a rich scarlet, shaded fiery red, changing to dark velvety crimson as the flowers expand; as dark but richer in color than the popular Hybrid Perpetual Prince Camille de Rohan. Continuous bloomer.

Columbia—A beautiful true pink, deepening as it matures to a warm glowing tone which endures. One of the very finest of all roses.

Dean Hole—Color silvery carmine shading to salmon. Fragrance delicate and pleasing. Flowers large, full and of perfect form. Beautiful in bud and valuable for cutting.

Dorothy Page Roberts—A coppery-pink suffused with apricot yellow. Valuable and striking in any collection.

Ecarlate—Blooms more profusely than any other Hybrid Tea. Flowers of intense brilliant scarlet and of perfect form. Continuous bloomer.

Etoile de France—Of clear red to velvety crimson. Flowers borne on long stems. One of the most charming of the red roses.

General McArthur—A brilliant, glowing crimson scarlet. Very sweet scented.

George Dickson—Color velvety scarlet-crimson, with brilliant scarlet reflexed tips. Of globular shape, five inches in diameter.

Gruss en Teplitz—Of intense and dazzling crimson-scarlet that attracts attention in any garden. Fragrance delicious and lasting—both odor and color appeal to all.

J. B. Clark—A great, massive burst of deep scarlet shading to blackish crimson and maroon. Flowers, too, are borne on long stems, making it invaluable for cutting.

Johnkeer J. L. Mock—This rose won the grand prize at the International Rose Show held in Paris in 1911. Of lovely

HYBRID TEA ROSES (Continued)

imperial pink, the flowers are large, produced freely and are highly perfumed.

Kaiserin Augusta Victoria—In color, a pale and lovely primrose. Especially desirable for cutting by reason of long stems, beauty of bud and flower. Considered by many to be the greatest creamy white Hybrid Tea.

Killarney Pink—Bloom of flesh-color suffused with pale pink in a delightful blend. Very fragrant and blooms grow naturally on long stems, making it valuable for cutting. This is easily one of the best half-dozen roses.

Killarney White—Similar to Killarney Pink but the color of flowers is white.

La Detroit—A most handsome and dainty rose, with a fragrance like Bon Silene and color of shell-pink, shading to a soft rose; outer petals of creamy color.

Lady Ashtown—Tender rose shading to yellow at base of petals with silvery pink reflex.

Lady Hillingdon—The color of this famous rose is beyond description. It is apricot-yellow shaded to orange on the outer edge of the petals, becoming deeper and more intense toward the center of the bloom. Buds produced on long stems well above the foliage, producing a slender and graceful effect. A very valuable rose.

La France—Whatever else one may plant in the way of roses, however much the grower may be enamored by other varieties, the garden should contain the La France to be complete. Or, where only a few roses are to be grown, this one should find a place. It is silvery rose in color with a sweet fragrance, and the flowers come freely and constantly. The blooms are large, full and globular, and of that graceful, decided rose-form that is so much to be desired in a permanent asset of the garden. The plant is of moderate growth and compact, the canes being strong and woody—in short, a plant that is of the right type to produce the very finest flowers for the garden or for cutting. Really indispensable and after many years of successful competition with rivals of many hues, still retains its popularity.

Laurent Carle—Produces large, deliciously scented, brilliant carmine flowers throughout the season, nearly as good in hot, dry weather as under more favorable weather conditions. Very hardy.

Los Angeles—Never in the history of the rose-world has a new rose created



KILLARNEY PINK (H. T.)
(See description on this page.)

such a sensation as the Los Angeles. It is absolutely the finest all-round rose ever introduced and must be seen to be appreciated. The stems are as long as the American Beauty, the flowers are large as the Paul Neyron, its freedom of bloom and continuance in flower are remarkable and its color—"a flame pink, toned with coral and shaded with translucent gold" at the base of the petals. If selection be limited to one rose, this is the one to select.

Mme. Abel Chatenay—This rose is especially recommended for cultivation in the South, where it attains great perfection. The blossoms are carmine-rose shaded with salmon and have a mild fragrance. They are freely produced, full and deep, the petals being handsomely curled. There is no rose exactly like it in the brilliancy of its color, and when well grown the hues rival those of the most gorgeous sunset—a beauty enhanced by the silvery or satin finish of the petals. The bush grows strong and erect. Should be planted in connection with other roses; at least, it seems to blend with other roses in such manner as to make its colorings all the more conspicuous.

Mad. Ravary—A golden-yellow favorite variety beautiful in both bud and flower at all stages. Fragrant and delightful.

Mrs. Aaron Ward—Deeply cupped buds which when open produce a delight-

HYBRID TEA ROSES (Continued)

fully attractive deep golden orange flower shading outward to creamy yellow.

My Maryland—A bright but tender salmon-pink; delightfully fragrant. Flowers double and of perfect form. Profuse bloomer.

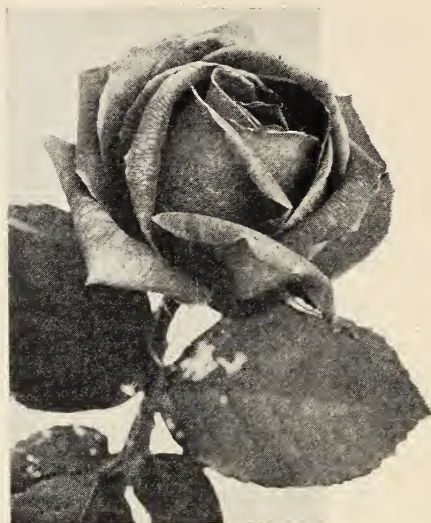
Ophelia—One of the most beautiful of the newer introductions. Excellent for cutting, its perfect flowers of distinct form emitting an exquisite fragrance. Color salmon-flesh shaded with rose.

Radiance—This rose blends its colors of carmine-rose with shades of opal and copper. Wholly delightful.

Rhea Reid—A beautiful rose of scarlet crimson that never disappoints either in bud or full bloom.

Richmond—One of the most gorgeous roses. In form and fragrance of flower it is simply superb. Wonderfully free blooming, its immense, fragrant, scarlet-crimson flowers are borne on long, stiff stems, making it a rival of American Beauty and even more dazzling in appearance. Considered the standard deep crimson rose in the florist's shop, selling at all times for high prices. In the garden its flowers are as fine as those found in the green-houses.

Sunburst—A magnificent giant yellow forcing rose, also well adapted for outdoor growing, being a vigorous and healthy rose. Buds long and pointed,



J. B. CLARK (H. T.)

(See description on page 164)

borne singly on long stout stems, opening full and double. An excellent cut flower variety having excellent keeping qualities. A very vigorous grower, reddish bronze foliage. The color is a superb orange copper or golden orange, with a deep orange center. This rose creates a sensation wherever grown.

PERNETIANA ROSES

All productions of the great French rose-grower, M. Pernet. They are hardy with ornamental tinted foliage.

Lyon Rose—Flowers pink-red with shades of coral, salmon and chrome-yellow. The fragrance is delightful. A profuse and constant bloomer.

Mad. Edouard Herriot—Flowers medium sized, semi-double, in a glorious commingling of terra-cotta, bronze, geranium red and dull copper; buds fine, long, pointed, of coral-red and yellow. Foliage a bronze-green.

Soliel d'Or—Especially valuable because of its rare color—gold and orange-yellow, varying to ruddy gold suffused with nasturtium red. Commonly known as "Sun of Gold."

Willowmere—Flowers a rich shrimp pink shaded yellow at center and toning to cream pink at base of petals. The buds are beautiful, the flowers large and the foliage a lustrous green.



SOLIEL D'OR

(See description at left of illustration.)

TEA ROSES

Introduced from China more than a century ago. *Not hardy and require protection*, but they will repay all labor as they are free bloomers, very fragrant and the beauty of bud and flower beyond compare.

Etoile de Lyon—The flowers are very deep and full and double with a sweet odor. Color a rich golden yellow. Very beautiful in bud.

Helen Gould—A delicate pink in center, charmingly graduated to a darker pink at the edges with a fragrance deliciously sweet. Buds pointed and large, flowers double, large and full.

Maman Cochet—This flower presents shades of pink and rosy crimson which change to silvery rose and possesses a marked fragrance. Pointed buds which open into extra large double flowers. One of the most desirable Teas.

Marie Van Houtte—An excellent rose of pale canary yellow, passing to rich creamy white generally shaded with pale rose. Very sweetly scented. No rose can quite take the place of this great favorite.

Papa Gontier—The color a cherry-red, changing to a glowing crimson, and the blooms exhale a sweet, mild fragrance. Exquisite and beautiful.

Perle des Jardins—An old-time favorite, the blooms of which are a deep golden yellow with a rich fragrance. This rose possesses an individuality unsurpassed by no other yellow and is ideal for cutting.

White Maman Cochet—One of the daintiest of the white roses. The blooms are sometimes tinged with a pale blush which accentuates their purity. The fragrance is as dainty as its blossoms. Many claim it is the best of all the white roses for garden culture.

BRIAR AND PENZANCE ROSES

All of this group are absolutely hardy. The leaves are delicately scented and are resistant to insects and unfavorable climatic conditions. All possess a dainty grace and beauty of bloom. Flowers are borne in greatest profusion.

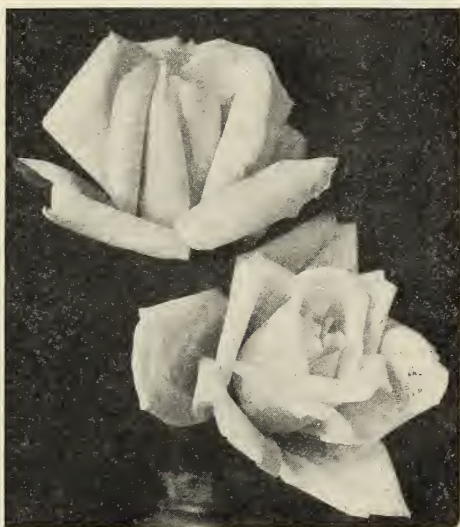
Austrian Copper—Color a bright coppery red, the reverse of the petals being golden yellow; the flowers single, brilliant, beautiful and fragrant.

Austrian Yellow—Color a bright golden yellow. Delightfully fragrant. Single flowered, very large and attractive.

Harrison's Yellow—Flowers semi-double of medium size. Color, bright golden yellow. Fragrant. Hardy and desirable.

Juliet—A most distinct and attractive rose with large flowers. The outside of petals is old gold, the interior a rich rosy red changing to deep rose as the flowers expand; of delicious fragrance.

Persian Yellow—Blooms are of a deep



LADY HILLINGDON
(See description on page 165)

golden yellow, decidedly fragrant. Flowers large, fine, nearly double and of exquisite form. An old-time favorite which is still good.

What is more beautiful than a well-grown rose?

HARDY CLIMBING ROSES

Climbing roses are useful for covering arbors, walls, etc. They succeed best in deep, rich soils. They should be pruned severely immediately after flowering to induce strong growth and to guard against mildew, to which they are subject, particularly if they are exposed to the hot sun.

American Pillar—A single-flowered type of great beauty. Flowers 3 to 4 inches across, of a lovely pink with a clear white eye of yellow stamens.

Aviator Bleriot—A new yellow Rambler whose foliage is insect and disease proof. Bears large clusters of medium sized full double flowers of saffron yellow deepening to an almost golden yellow at center.

Baltimore Belle—The flowers are fragrant and produced in a large cluster and are very double. Color pale blush to rose white. Vigorous and hardy. One of the finest climbing roses.

Climbing American Beauty—One of the best climbers. Color, a pleasing rose pink of splendid form and good substance.

Crimson Rambler—This was the first of the Ramblers introduced from Japan in 1894. Too well known to need a description; everyone is familiar with its large clusters of crimson flowers.

Dr. W. Van Fleet—This rose, because of its dainty color and exquisitely shaped buds and flowers, appeals to all. The long pointed buds are of flesh pink borne on stems 12 to 18 inches long. Splendid for cutting.

Dorothy Perkins—A clear cherry-pink of sweet fragrance. Always gives satisfaction because it is a rapid grower and always healthy. One of the very best climbers.

Excelsa—Color blood red, the tips of petals tinged with scarlet. Flowers double and foliage a dark glossy green. Commonly called "Red Dorothy Perkins."



PAUL'S SCARLET CLIMBER

Flower of Fairfield—Known to many as the everblooming crimson Rambler. It carries its bloom from spring even into November. Very desirable.

Goldfinch—The best yellow Rambler to date. Flowers large, semi-double, in full clusters of a rich lemon yellow.

Paul's Scarlet Climber—This new hardy climber was originated recently in England. It is not a Rambler, but is an entirely distinct hybrid and without question the most important addition to the list of Climbing Roses in many years. Incomparable in brilliancy of color, which is a vivid scarlet maintained without burning or bleaching until the petals drop. Flowers are medium size, semi-double; Very freely produced in clusters of from 3 to 6 each on large branched canes, the plants being literally covered with flowers from top to bottom. It is strong, perfectly hardy and has been awarded the Gold Medal by the National Rose Society of England; also the much coveted Gold Medal of the Bagatelle Gardens in Paris France. Most highly commended by the English Horticultural Press and the American Rose Society.

Silver Moon—Different from all other

HARDY CLIMBING ROSES (Continued)

roses, with beautiful semi-double flowers four and one-half inches in diameter. Pure white in color, beautifully cupped; the large bunch of yellow stamens in the center adds to its attractiveness.

Source d'Or—A new very hardy golden yellow large double flowered climber.

Queen of the Prairie—An old-time favorite. Blossoms of bright pink, sometimes with white stripes, and are very fragrant. A great bloomer and very hardy.

Tausendschoen—Distinctly different from any other rose and a very charming one, too. Color, soft pink changing to rosy carmine. Flowers profusely. Hardy. One of the best and merits its name of "Thousand Beauties."

White Rambler—Color pure white sometimes tinted with blush and produced in great profusion. In every respect a most satisfactory and pleasing climber.

White Dorothy Perkins—Similar to the pink form in every respect. Very fine.

THE CLIMBING TAUSENDSCHOEN ROSE

Tausendschoen, which in English means "The Thousand Beauties," a rapid growing Climber, blooming in June and July.



THE CLIMBING TAUSENDSCHOEN

It is at first a soft pink—later a bright carmine color.

This is a very beautiful climbing rose and is described at left of cut.



CLIMBING ROSES OVER WELL

POLYANTHA ROSES

(Fairy or Baby Ramblers)

No class of roses is more popular than this. They are hardy, showy and compact growers. They hold their color well and continue in bloom through a long season. They are dwarf in habit, 18 to 24 inches in height and indispensable.

Baby Rambler—When in bloom the bush presents the appearance of an assembled bouquet except for a glimpse here and there of the deep glossy green leaves. Flowers crimson-red and slightly fragrant. For a rose-hedge it has no superior among all roses.

Baby Dorothy—In color similar to the climbing Dorothy Perkins and in every respect equal to the Baby Rambler above except the color of bloom, which is as beautiful a pink as can be imagined.

Baby Tausendschoen—Identical in color to the popular climbing Tausendschoen, a soft tender shade of pink, blooming throughout the season.

Clothilde Soupert—An ivory-white rose of peculiar charm. Center of flower a silvery rose, outer petals pearly white. Of delicate fragrance, carrying its bloom until the first freeze of winter.

Echo—A beautiful semi-double, blush white flowers produced in great abundance. Vigorous grower.

Ellen Poulsen—A very brilliant pink, large, full, sweet-scented; vigorous habit and free bloomer.

Erna Teschendorf—A sport from the Crimson Rambler, as bright as Gruss

en Teplitz, which has been described as the reddest of all roses.

George Elger—A coppery golden-yellow in bud but a pale-yellow when fully opened.

F. J. Grootendorst—This rose is the result of crossing a briar rose (*Rosa rugosa*) with the dwarf Rambler (*Polyantha*). It is needless to say that this union of stock produces an extremely hardy rose. It grows more vigorously than the Polyanthas, showing its *Rosa rugosa* blood in this as well as in the foliage, which is insect and disease proof. The flowers are borne in clusters—not many in the cluster—but each individual rose stands out full, clean and distinctive and the color is a decided deep red. The size of bloom, too, is double that of the ordinary Polyantha. In bloom constantly from early summer until winter. In all, a remarkable addition to the rose family and one which will demand a place in every garden.

Jessie—Of a bright cherry crimson which does not fade. Blooms constantly until killed by frost.

Mad. Cutbush—Clear flesh pink with shadings of rose. One of the best pink ramblers.

Orleans—Geranium red with distinct center of pure white. Free bloomer; a great favorite.

Pink Soupert—The bloom is large, profuse, fragrant and handsome. Color, a cheerful, bright rose-color. Persistent bloomer and valued as a foreground for border varieties.

White Baby Rambler—Blossoms are



BED OF WHITE BABY RAMBLERS

(For description of the Baby Rambler Roses refer to descriptions above and on page following.)

POLYANTHA ROSES (Continued)

(Fairy or Baby Ramblers)

pure white and have a rich fragrance. Can be used to good advantage in connection with either the crimson or pink varieties of this class.

Yellow Soupert—Blossoms of chrome-yellow, appearing freely in clusters. They are large and double and especially dainty in bud. A constant bloomer from early summer until freezing weather.

Yvonne Rabier—The best white Baby Rambler, with full double flowers produced in great profusion.



PAUL NEYRON
(See description on page 163)

ROSA RUGOSA AND ITS HYBRIDS

This type is perfectly hardy and is much used in landscape work. Growth upright. Height about six feet. Very sturdy and very thorny. The leaves are a dark, lustrous green. These roses are not annoyed by insect pests. The flowers are followed by brilliant red fruit which gives this type a peculiar charm in late fall and early winter. Valuable for hedges and borders.

Rosa rugosa alba—The flowers of this rose are three inches across, of rosy-carmine or white, borne singly or in terminal clusters. Leaves are a dark, lustrous green and wrinkled. Valuable for landscape work.

Rosa rugosa rosea—A rosy-pink of this variety similar in other respects to *Rosa rugosa*.

Rosa rugosa rubra—The red-colored form of *Rosa rugosa*.

Blanche Double de Coubert—A splendid double pure-white rose of this class. One of the best. Foliage deep green; not subject to blight.

Conrad F. Meyer—A Japanese variety of

a lovely silvery rose, full double with a fragrance that is delicious. A rose of many virtues and surpassing beauty. Blooms freely all season.

Hansa—An attractive double reddish-violet rose of the *Rugosa* sort.

Mme. Georges Bruant—A pure white rose of rich and subtle fragrance. The buds are long and pointed and the flowers loosely double. Blooms all summer.

New Century—A very beautiful flesh pink with light red center.

Roseaie de l'Hay—A new Hybrid *Rugosa* of which we cannot speak too highly. A good grower; flowers very double, of a carmine cherry red. Very fragrant.

ROSA WICHURAINA

A half evergreen shrub with prostrate creeping branches and glossy green foliage. Flowers single, fragrant and about two inches across in clusters. Good for covering banks and rockeries.

Memorial Rose—The best rose for covering unsightly objects. Its shining foliage and pure-white fragrant blossoms make it desirable for banks and rockeries.

ROSA RUBIGNOSA

Grown more for its fragrance than its beauty. Dense growing. Ultimate height about six feet. Foliage exhales an agreeable odor. Flowers single, about 1½ inches

ROSES (Continued)

in diameter and are borne in small clusters. Very hardy. The named varieties under Briar and Penzance Roses are hybrids of the *Rosa rubignosa*.

Rosa rubignosa—One of the sweet briar and are bright pink. Very valuable in landscape work.

ROSA RUBRIFOLIA

Very valuable to secure color effect in landscape work. The leaves are blue-green, deeply tinged with purplish-red. The fruit is scarlet and add much to its attractiveness in early winter. A very hardy and unusual rose. A good substitute for purple barberry.

ROSA SETIGERA

A beautiful shrub with long, slender, recurving branches. Grows to a height of about six feet. Flowers in great profusion. Valuable for massed plantings in landscape work.



GENERAL JACQUIMINOT
(See description on page 163)

Blanche Moreau—A lovely large pure-white rose.

Crested Moss—As its name implies, it is crested with rich green shadowy moss. Color pale rose. The blooms are large, full and of exquisite form. Beautiful in bud and in full bloom.

Henry Martin—Color deep carmine,

MOSS ROSES

Moss roses require a rich soil, and are attractive either in masses with shrubbery or as a background for Hybrid Perpetual roses in the rose garden. They should be pruned severely each year and kept low, but as the blooms are produced on the wood of the previous year's growth, pruning must not be done until immediately after flowering. The varieties mentioned are best of the very best. All are fragrant.

shaded with bright crimson. The buds are especially well mossed and while not so well known as some of the other varieties, is a favorite when once seen.

Salet—A rosy pink. Both bud and blossom are fully crested with moss. Considered one of the most desirable of the Moss Roses.

The Peony originally came from Siberia. Cold winters only help them. While good care produces wonderful flowers, you can hardly kill them with neglect.



YUCCA (Page 188)

Perennial Flowers

THIS class of plants has many practical merits. Being perennial, they grow year after year without renewal and when once established will live for a generation or more with very little care. They bloom so freely that they are unsurpassed for cut-flowers; and their variety is so great that the garden is full of interest, from the little white Helleborus and Trillium, which come to us as the first resurrection song of spring, on through the grand overtures of June and early summer, till the last long requiem of fall when Nature softly drops her pall of leaves over her dead.

And they have great artistic merits. The range of color, form, size, and time of blooming is so varied that there is no limit to their possibilities as garden material for the flower border or formal garden, whilst for the mixed border they are invaluable to color and liven up the shrubbery during the midsummer dearth of bloom.

These flowers made glad the hearts of our grandmothers and many of us have childhood memories of the miracles of beauty they created. But for some unexplained reason they have been neglected for a number of years. In our vain search for something better, many gardeners have planted tender exotics, with much loss of money and good feeling, with the result that there has come about a return to the old-time favorites. The revival of the flowers so popular in "Ye Olde Time" garden is a good sign of our return to a true appreciation of Nature's beauties, and to a large extent to some of the choicest of the wild herbaceous flowers of America. This does not exclude the rich offering of hardy flowers from other sections of the world—notably Europe. Meanwhile the scientific gardeners and hybridists have been at work producing new strains and varieties and much progress has been made. It is enough to cite the case of the gorgeous Shasta Daisy, which Luther Burbank has evolved from the little field daisies of earlier days.

In planting the perennial garden one should be careful to avoid any inharmonious combinations, for an assemblage of plants is not artistic unless relatedly connected in the grouping. It is unfair to affront the fair name of flowers with improper arrangement.

It is also well to remember that each family has certain habits and peculiarities of its own. Some, like Dianthus, Achillea, Anemone, Aquilegia and Coreopsis, are low-growing and express themselves naturally in the foreground of the taller kinds. Others, like Hollyhocks, Helianthus, Boltonia and Rudbeckia, are naturally tall-growing and should be in the background, where they serve as a foil for the lower plants and have the breadth and scope of earth and sky to properly develop. Others still are of medium growth, like the Phlox and Delphinium, and fit in nicely between; but it is well to guard against planting them with such architectural precision that they form banks, or steps, or terraces, but rather should they be billowed in broken swells like the cheery abandon of the ocean waves.

Perennials die to the ground in winter and grow up again early in the spring. The stalk increases in size with each year and in most instances needs to be dug up after four or five years and replanted after the stalks are separated. Several varieties mentioned are especially adapted for borders. We mention height of growth so as to aid in making selection for desired effect. Further information, if desired, on the subject of hardy herbaceous plants, will be cheerfully given.

SELECTED LIST OF HARDY PERENNIALS

From a long list of hardy herbaceous perennials we select the following as being the choicest and most satisfactory for ornamental gardening. We advise early

PERENNIAL FLOWERS (Continued)

spring planting in very rich soil, deeply worked. For an effective border, use plants of the same variety and color as much as possible. Perennials are most effective if planted in groups along the borders of mass plantings of shrubbery so as to blend into the surrounding groups with pleasing contrast.

ACHILLEA—Yarrow

A. Eupatorium (Fern-Leaved Yarrow)—Finely cut foliage and brilliant yellow heads of flowers lasting in full beauty all summer. Four to five feet.

A. Ptarmica Fl. Pl. (The Pearl)—Pure white flowers. Blooms all summer in the greatest profusion. Strong, erect stems 2 feet high. Valuable for cutting.

ACONITUM—Monkshood

A. Napellus—Large dark blue flowers. August to September. Four feet high. Valuable under trees or in shady positions.

ALYSSUM—Madwort

A. saxatile compactum (Basket of Gold, or Gold Tuft)—Indispensable for rockeries or border, growing one foot high. Blooms in May. Broad, flat heads of bright yellow flowers.

ANEMONE JAPONICA

Japanese Windflower

Among the most important of hardy plants. Begin blooming in August and continue in full flower until cut down by hard frost. Fine for cutting. Height, 2 to 3 feet.

A. japonica alba—Large, snowy-white.

A. japonica rubra—Beautiful rosy-red; stamens bright yellow.

A. Queen Charlotte—Large semi-double flowers of pink.

A. Rosea Superba—Medium-sized flowers of silvery-rose.

A. Whirlwind—Large semi-double pure-white flowers.

ANTHEMIS—Marguerite

A. tinctoria—Bushy habit, growing 15 inches high, producing large golden-yellow, daisy-like flowers during the entire summer.

ASTILBE

A. Davidii—Its 5 to 6 feet high stems are crowned with feathery plumes of deep rose-violet flowers during June and July.

A. hybrida Moerheimi—Height, 5 to 6 feet. The spikes of beautiful creamy-white flowers are over 2 feet long. Very fine.



GLADIOLUS (Page 190)

BAPTISIA—False Indigo

B. australis—About 2 feet high; suitable for border with dark green deeply-cut foliage and spikes of dark-blue flowers in June.

B. tinctoria—Same as above, but flowers a bright yellow in June; 2 to 2½ feet high.

BOCCONIA—Plume Poppy

B. cordata—Beautiful in foliage and flower. Admirable in any planting; 6 to 8 feet high. Flowers terminal panicles of creamy-white during July and August.

BOLTONIA—False Chamomile

B. asteroides—Very showy. Large single aster-like flowers during summer and autumn months. Color, pure white; 5 to 7 feet tall.

B. latissquama—Habit like above but the color is of pink slightly tinged with lavender.

CAMPANULA—Canterbury Bell

These are among the showiest of May and June-blooming perennials. Their bold spikes of flowers in rose-pink, blues and whites make them extra desirable as they are fine for cutting. Period of bloom 4 to 5 weeks, but it can be prolonged if the

PERENNIAL FLOWERS (Continued)

flowers are pinched out as soon as they fade.

- C. carpatica*—A pretty species growing in tufts not over 8 inches high. Flowers clear blue. Blooms June to October. Fine for edging.
- C. latifolia macrantha*—Large purplish-blue flowers. May and June. Height 3 feet.
- C. persicifolia*—Blue flowers during June and July, 2 feet high.
- C. pyramidalis*—Forms a perfect pyramid 4 to 6 feet high, covered with porcelain-blue flowers in August.

CASSIA—American Senna

- C. marilandica*—Bushy, 3 to 4 feet high. Large panicles of bright yellow flowers from July to August. The foliage is also very pleasing.

CENTAUREA

- C. montana* (Perennial Corn Flower)—Two feet high. Flowers large, violet-blue from July to September. Delights in sunny position. Excellent for cutting.

OLD-FASHIONED LARGE-
FLOWERING HARDY
CHRYSANTHEMUMS

Popular because they are hardy and bloom at a time when other plants are destroyed by frost. Valuable for cutting. Colors rose-crimson, Indian red yellow, pink and white. Strong field-grown clumps.

Autumn Beauty—Golden brown.

Carmelite—Deep golden yellow.

Eva—Flowers a delicate pink; one of our best early varieties.

Favorite—Rosy pink; popular.

Glory of Seven Oaks—Dwarf, golden yellow, very free flowering and very early.

L'Argentullaise—Deep chestnut, medium height, early.

Nelly Rainsford—Light pink.

Oconto—A Japanese variety, white, very large flower, strong rigid stem, early.

Old Homestead—Soft pink.

Rosea—Bright red, wonderfully colored.



SHASTA DAISY

Rosy Morn—Silver pink.

Snowclad—Pure white, one of the best.

Victoria—White.

SHASTA DAISY

Shasta Daisy—A decided improvement on the original. Blooms $4\frac{1}{2}$ to 5 inches across, of pure, glistening white. Free flowering all summer and fall.

CLEMATIS

C. heracleafolia Davidiana (Shrubby Clematis)—Bush habit, 2 to 3 feet high. Fresh, bright green foliage and tubular bell-shaped flowers of deep lavender blue during August and September. Deliciously fragrant.

CONVALLARIA—Lily of the Valley

This is often starved and neglected and relegated to some poor, out-of-the-way corner; but this popular and fragrant subject, like most other plants, repays for being well treated, and if the bed is given a liberal top-dressing of well-decayed manure in early spring, it will show the effect by increased size, number and vigor of the flowers. The stock we offer is strong clumps, especially suited for outdoor planting, which should be done before the end of April.

COREOPSIS

C. lanceolata grandiflora—Very popular. Flowers rich golden yellow. Invaluable for cutting. Main crop in June, but continues in bloom the entire summer and autumn.

PERENNIAL FLOWERS (Continued)



DELPHINIUM

We illustrate above the hardy Larkspur, botanically known as *Delphinium*. We have several varieties. The *Belladonna* and *Formosum* seem to be the favorites. The *Belladonna* is especially beautiful. See description of varieties on this page.

DELPHINIUM—Hardy Larkspur

The Larkspur begins blooming in June and by cutting off the plants close to the ground as soon as each crop has faded a second and third will succeed. The stalks are very tender and should be staked when about 3 feet high.

D. Belladonna—The freest blooming of all Delphiniums. Flowers a clear turquoise blue.

D. formosum—The old favorite, dark blue with white center. Vigorous and free flowering.

D. King of Delphiniums—One of the most distinct of the newer hybrids. Strong grower. Flowers of gigantic

size, semi-double and of a deep blue with large white eye.

D. Moerheimeii—The first really white Delphinium. Vigorous grower, 5 feet high. Flowers pure white, blooming from June till frost.

DIELYTRA OR DICENTRA

D. spectabilis (Bleeding Heart)—The old-fashioned favorite, with long racemes of graceful, heart-shaped pink flowers. Does well in shade. Blooms in May. Height 2 feet.

DICTAMNUS—Gas Plant

A very showy border perennial, 2½ feet high. Fragrant foliage and spikes of flowers during June and July. Must have the sun. Improves with age.

D. Fraxinella—Rosy pink flowers.

DIGITALIS—Foxglove

Old-fashioned dignified and stately. Good in any garden. Four to six feet high.

D. gloxinaeflora—A beautiful strain of the finely spotted varieties. Can send them in white, purple, rose, or mixed. Order by color.



DIGITALIS

PERENNIAL FLOWERS (Continued)

FUNKIA—Plaintain Lily

These are among the easiest plants to manage. They are attractive for the border even when not in bloom because of their broad, massive foliage. Succeed in either sun or shade.

F. lanceolata—Flowers lilac colored in September. Two feet high.

F. subcordata grandiflora—Very large flowers in August and September. Fragrant.

GAILLARDI—Blanket Flower

G. grandiflora—One of the showiest perennials. Succeeds in any sunny spot. Begins to flower in June and continues all season. Flowers are large, center a dark red-brown, while the petals are marked with rings of brilliant crimson, orange and vermilion—often all combined in one flower. Excellent for cutting. Height 2 feet.

GEUM—Avena

Pretty border plants about 15 inches high, producing showy, bright-colored flowers from May to July.

G. coccineum—Brilliant scarlet flowers.

GYPSOPHILA—Baby's Breath

Thrives anywhere if sunny.

G. paniculata—This possesses a grace not found in any other perennial. Blooms during July and August. Two to three feet high. Flowers are minute, of pure white and together with its foliage gives the plant a beautiful, gauze-like appearance. Excellent to use in combination with other flowers in bouquets.

HELIANTHUS—Hardy Sunflowers

Among the most effective for large borders, among shrubbery or as large clumps. Free-flowering and succeed in any soil.

H. Maximillianii—Late-flowering sort, producing golden yellow flowers in graceful sprays in October when all others have finished. Good for cutting. Five to seven feet high.

H. multiflorus fl. pl. (Double Hardy)—Large dahlia-like golden-yellow flowers in July and August. Four feet high.

HELENIUM—Sneeze Wort

Desirable border plant. Succeeds anywhere if given a sunny location. Broad-spreading heads of flowers, useful for cutting.

H. Autumnale superbum—Golden-yellow flowers during late summer and fall months. Five to six feet tall.

H. pumilum magnificum—Most useful, about 18 inches high. Completely smothered with golden-yellow blossoms all summer.

H. Riverton Beauty—Rich lemon-yellow with large purplish-black cone. August and September. Four feet tall.

H. Riverton Gem—Old-gold changing to wall-flower red. Four feet high.

HELIOPSIS—Orange Sunflower

Similar in general habit to *Helianthus*, but begins blooming in July and throughout August.

H. Pitcheriana—Three feet high. Flowers of a beautiful deep golden-yellow about 2 inches in diameter. Useful as a cut flower.

HEUCHERA

Alum Root or Coral Bells

Most desirable dwarf, compact, bushy plants, 1½ to 2 feet high. Flowers July and August.

H. sanguinea—A bright coral-red sort. Bears loose, graceful spikes of flowers in greatest profusion. Excellent for border and of great value for cutting.

HEMEROCALLIS—Yellow Day Lily

Popular plants belonging to the Lily family. Succeed everywhere.

H. flava—Best known variety; very fragrant; deep lemon-yellow flowers in June and July. Height 2½ to 3 feet.

H. fulva—Grows from 4 to 5 feet high with trumpet-shaped flowers of a neutral orange color with darker shadings. June and July.

HELLEBORUS NIGER

Christmas Rose

Valuable because it yields with utmost freedom in very early spring its beautiful blossoms—two or three inches across. Does best in a partially shaded position.

HIBISCUS—Mallow

A desirable plant for the hardy border. Succeeds in any sunny position. Loves moist soil. Grows 3 to 5 feet high.

H. Mallow Marvels—A robust type of upright habit. Flowers large in all the richest shades of crimson, pink and white; mixed colors.

H. Moscheutos—Flowers six inches in diameter, of light rosy-red with darker eye.

H. "Crimson Eye"—Immense sized flowers of purest white with a large spot of deep velvety crimson in the center.

HOLLYHOCKS

Grow from 6 to 8 feet high and are a necessity in any old-fashioned garden. Can supply the following colors in either double or single: White, red or maroon.

IBERIS—Hardy Candytuft

Most desirable of dwarf plants (8 to 10 inches), with evergreen foliage completely hidden with dense heads of flowers early in spring.

I. Little Gem—Very dwarf. A fine rock plant.

I. sempervirens—This sort bears innumerable flat heads of pure white flowers.

Iris



IRIS GERMANICA (GERMAN IRIS)

THE wealthy may enjoy their hothouse orchids, but nature has placed within the reach of all an absolutely hardy substitute growing in common soil, requiring little care and many varieties rivaling the rose for fragrance. Greek mythology has it that the Iris is a Messenger of the Gods, radiant with maiden divinity, bearing on golden wings direct from heaven the many hued rainbow into our garden.

It is a difficult matter to decide which is the finest flower for gardens in summer time. Surely the beauty of the Iris would make them rank high in any list, and it will be difficult to name any plant that produces such gorgeous flowers with less care and attention from the grower.

The varieties of Iris have multiplied rapidly recently, owing to the great demand for them, and there is still considerable uncertainty in the classification. We exercise extreme care to send out plants true to name and description.

Iris may be planted at any time when the ground is not frozen. If planted in the summer they may need water for a few weeks until they are established. No manure should ever touch the roots. Bone-meal and lime is the best fertilizer. The varieties with fleshy root stocks should be set so they are barely covered with earth. Drouth after flowering does more good than harm when the plants are once established, but they appreciate moisture before and during the flowering season.

LATE FLOWERING TALL BEARDED IRIS

In description S. means Standards or upright petals. F. means fall or drooping petals.

Arnolds—S. purplish-bronze. F. rich velvety purple. Style arms, bronze striped violet. All divisions very long. Striking and handsome flowers.

Candelabre—Semi-early. S. very long, erect, bright violet with both lighter

and darker shading, strongly spotted dusky violet at base on inside giving a peculiar tigered effect. F. rich and velvety dusky violet at base, dusky velvety violet striped on white. Unique candelabrum-like form and rich coloring.

Celeste—Delicately beautiful flowers, self-colored pale blue. Very free.

IRIS (Continued)

Chester Hunt—S. celestial blue. F. dark ultramarine blue with velvety overlay, bordered pale blue, shading at base.

Fairy—One of the most beautiful and graceful. Divisions are very broad. Standards incurving and falls recurving producing a globular form. S. white with midrib of soft green, delicately veined blue at base. F. creamy-white delicately veined blue at base. Style arm very conspicuous, bright clear blue. This sort is one of the indispensables.

Frederick—S. pale lavender. F. lavender barred with brown, very pretty form, all divisions very full and long. Very free. One of the best for massing.

Fro—S. deep gold. F. brilliant chestnut brown with narrow border of gold. Style arms gold.

Her Majesty—Semi-early. S. and F. self colored beautiful bright rose slightly lilacish. Color unique. Robust and free flowering. The prettiest of the pink sorts.

Honorabilis—S. golden. F. rich Mahogany-brown.

Loreley—S. light yellow. F. velvety purple at base, broadly striped on yellowish white and margined cream. Style arms deeper yellow.

Madame Chereau—One of the best strong and beautiful. S. white deeply and elegantly frilled bright lobelia-blue. F. long and drooping white bordered blue. Style arms bright blue.

Maori King—Coloring very brilliant. S. Rich golden yellow. F. velvety crimson margined gold.

Pallida dalmatica—The pallidas are all tall strong growers, with broad leaves and long stems of very large flowers, very sweet-scented. *Pallida Dalmatica* is one of the finest Irises grown having enormous flowers of beautiful silvery-lavender on tall strong spikes. It is unequaled for massing and fine for cutting. The true variety is very scarce.

INTERMEDIATE IRIS

These are between the dwarfs and tall bearded in both time of bloom and in height.

Dorothea—Great fluffy flowers, seven inches across. The standards droop, giving the effect of a Japanese Iris. Both Falls and Standards are beautifully ruffled and of very delicate texture. The color is very soft mauve, almost tinted white, deeper at base of divisions. F. strong veined brown at base. Style arms tinted rosy-lilac.

Etta—Very large flower with all divisions very long and broad. S. pale lemon-yellow. F. deeper shade of lemon-yellow, washed with gold at base. Beautiful.

Wahalla—S. light lavender. F. wine red. Very large flowers.

DWARF BEARDED IRIS

These varieties afford fine edging for beds and borders. They usher in the season by beginning to bloom early in April. Like all intermediate and tall bearded Iris they thrive in dry places and in partial shade and like lime.

These sorts are useful for edging and for planting in front of taller varieties. They flower thru April and May—the earliest beginning the end of March.

Balceng Blue Beard—S. white flaked pale blue. F. sulphur marked purple.

Nudicaulis—S. violet. F. purple black.

Orange Queen—S. and F. beautiful clear yellow, beard orange.

SIBERIAN IRIS

Siberica Orientalis—Flowers of brilliant blue. Small inner petals long and narrow, curving together at apex. Three outer petals with spatulate blade base greenish yellow veined brown, tinted reddish on flange. Buds enclosed in conspicuous red spathe valves.

Snow Queen—Structure similar to *Orientalis*, but all divisions pure white. Three larger outer petals golden at base. Very lovely.

LIATRIS—Blazing Star

Showy and attractive. Succeeds anywhere. Produces large spikes of flowers in July and August.

L. scariosa—Deep purple flowers, 3 to 4 feet high.

LINUM—Flax

L. perenne—Desirable for border or rockery. Two feet high. Light, graceful foliage and large blue flowers all summer.

LOBELIA

Handsome border plants. Bloom from early August till late September.

L. cardinalis (Cardinal Flower)—Rich fiery cardinal flowers, 24 to 30 inches high.

LUPINUS—Lupine

Effective plants. Large spikes of flowers. Bloom in May and June. Height 3 feet.

IRIS (Continued)

- L. polyphyllus*—Clear blue in color.
L. Moerheimii—Color a combination of light and dark shades of pink.

LYCHNIS—Campion

Easy culture, thrive in any soil.

- L. chalcidonica*—A most desirable plant, heads of brilliant orange - scarlet in June and July. Two to three feet high.
L. viscaria (Double Red) — Forms a dense tuft of evergreen foliage and in June sends up spikes of handsome double, deep red, fragrant flowers. One foot high.

LYTHRUM

- L. roseum superbum* (Rose Loose-Strife)—A strong-growing plant, 3 to

4 feet high. Thrives almost anywhere. Produces large spikes of rose-color flowers from July to September.

MONARDA—Bergamot

Showy plants of 2 to 3 feet in height. Succeeds anywhere. Aromatic foliage.

- M. didyma* — Brilliant crimson - scarlet flowers during July and August.

MYOSTIS—Forget-Me-Not

M. palustris semperflorens—Hardly ever out of flower. Useful in shady spots.

- M. alpestris robusta grandiflora* — The large spring-flowering sort with intense sky-blue flowers, bright and attractive.

We are the first and only nursery in the United States that is propagating fruit stock from scientifically selected parent trees.



PEONIES

The modern Peony has been termed "The flower for the million and millionaire."

There are supposed to be over 2,000 varieties and possibly more coming. They are not all good. We have eliminated each year certain varieties, added others from time to time, and offer you in this list varieties we think should be in every garden.

The Rose has justly been called the Queen of Flowers, but the Rose is more properly adapted to the southern climate and does not reach its best in that portion of the United States north of the Ohio river and east of the Rocky Mountains.

But the Peony is particularly adapted to the north temperature zone and our readers should not compare the modern Peony with the "Piney" of our childhood days.

When the Peony is once planted nothing more is required except a liberal dressing of bone-meal every fall and each succeeding year will add to the size and beauty of the flower.

Free from disease and insects—no spraying required. The foliage rich and glossy and a beautiful deep green. All of the improved varieties are deliciously sweet scented and many surpass the rose and carnation in delicacy of fragrance. The flowers are large in size and in color unsurpassable, with a range of varieties of almost every tint of pink, red and crimson, priced in our list, as well as the white and the ivory white.

Peonies should be planted in deep rich soil with a good quantity of bone-meal incorporated. Do not use commercial fertilizer or manure and the roots should be set in the ground with the top bud three inches below the surface of the soil and the ground well firmed around it, using care, of course, not to damage buds.

For permanent planting, they should be set from 3 to 4 feet apart each way and left undisturbed indefinitely. When it is desired to intersperse peonies among other hardy garden flowers they should be planted in groups of from 3 to 5, each group to be of one variety.

PEONIES (Continued)



*"Erect in all her crimson pomp you'll see
With bushy leaves the graceful peony."*

PEONIES (Continued)

In arranging a bed of Peonies of 15 to 50 roots we strongly urge the planting of one variety, for while sorts may be had that bloom in theory about the same time, the result is never satisfactory, for in fact they come straggling into bloom one after the other and the effect desired is never wholly gained, while a bed of one fine sort is a magnificent sight.

Peonies should be planted in the fall. To move Peonies at any other season except September means a setback from which the roots do not recover for two years. The best time for shipment is during the month of September or early October. We can begin shipping in September and continue to fill orders as late in the year as the ground remains open.

There are hundreds of varieties. We list on pages following the varieties we are growing at our Ornamental Branch No. 4. You will see on page 183 a photograph of cut showing visitors inspecting our Peony block on June the 8th, 1922. Some of them were in bloom, as you will see. Others will bloom later, as the modern Peony blooms from Decoration Day on until late July, depending on selection of varieties.

AS FLOWERS FOR DECORATION DAY

the Peony is pre-eminent—that is three varieties which are known as *Officinalis Alba*, *Officinalis Rubra* and *Officinalis Rosea*. If these are planted by every home owner, the graves of loved ones gone before would not suffer from any dearth of bloom on Decoration Day. If your selection is confined to three and you want very early blooming for that day select the ALBA, THE RUBRA AND THE ROSEA OFFICINALIS.



Plants shown in foreground of our test block of Peonies, which were in bloom at time our Salesmen's Annual Convention was held on June 8th, 1922.

PEONIES (Continued)

- Achille**—Large medium compact, rose type, shell pink, fading to lilac white. Fragrant, erect, tall, free bloomer. Early midseason.
- Baroness Schroeder**—Very large, globular, rose type. Flesh-white fading to milk-white. Fragrant. Tall and strong. Very free. Midseason.
- Couronne d'Or**—Large, white, semi-rose type. Pure white with a ring of yellow stamens, around a tuft of center petals tipped carmine. Medium tall. Strong grower. Free bloomer. Late.
- Comte d'Osmont**—Medium size, loose, globular crown. White tinged creamy-sulphur, center flecked crimson. Height medium. Early mid-season.
- Delachei**—Large medium compact, rose type. Violet-crimson, slightly tipped silver. Medium height, strong erect and free. Late mid-season.
- Dorchester**—Large compact, rose type. Pale Hydrangea pink. Fragrant. Medium dwarf. Upright free.
- Duchess de Nemours**—Medium size. Pure white crown. Sulphur-white collar, no crimson flecks. Fragrant, medium height. Vigorous and free. Early. Extra good commercial variety.
- Duc. Du Wellington**—Large, bomb, with white guards, and sulphur center. Fragrant. Medium height. Vigorous and free. Late.
- Felix Crousse**—Very full, large globular, bomb. Very brilliant red. Fragrant. Strong, vigorous, medium height, free bloomer in clusters. One of the best reds.
- Festiva**—Large, full, double, rose type. Creamy white with crimson spots in center. Dwarf plant. Fragrant. Late. Ships well and stands cold storage.
- Festiva Maxima**—Very large, globular, rose type. Very broad petals. Pure white center usually flecked crimson. Outer petals sometimes pale lilac-white on first opening. Very tall, strong and vigorous. Early. Most popular white for cut flowers.
- Floral Treasure**—Very large rose type. Pale lilac-rose. Tall vigorous, grower and free bloomer. Fragrant. One of the best commercial sorts. Mid-season.
- Francis Ortegat**—Large semi-rose. Dark amaranth-red, brilliant golden-yellow stamens intermingled with petals. Fragrant. Very striking and handsome. Medium height and habit. Mid-season.
- Golden Harvest**—Medium size, loose, bomb or informal rose type. Guards, pale lilac-rose, center creamy white, on strong plants developing many wide petals of peach-blossom pink. Fragrant. Dwarf, very free. Mid-season. A very striking variety.
- Lady Bramwell**—Silvery pink. Late mid-season.
- La Sublime**—Crimson, fine, full, fragrant.

PEONIES (Continued)

Louis Van Houtte—Medium size, semi-rose type. Color deep carmine rose tipped silver, with fiery reflex of dazzling effect. Fragrant. Medium height. Late.

Madame Crousse—Medium size, globular crown. Pure white center flecked crimson. Medium height, strong free bloomer. Mid-season. One of the very best whites.

Madame Jules Elie—Medium size, globular, crown, guards violet rose, collar cream-white, center flecked crimson. Fragrant. Habit medium. Mid-season.

Marie Lemoine—Large, very compact, rose type. Sulphurish, cream-white occasionally flecked carmine. Fragrant, medium height, extra strong stem. Very late. Extra good commercial variety.

Monsier Dupont—Large, flat, semi-rose type. Cream-white tinged yellow, showing stamens and tipped bright carmine. Fragrant, tall, erect, free. Mid-season.

Monsier Jules Elie—Flowers immense globular, very full high crown. Pale lilac-rose, collar lighter, shaded amber-yellow at the base. Fragrant. Medium height, strong grower. Early. Fine for cut flowers.

Nobilissima—Bright deep pink. Good stems. Lasts long.

Queen Victoria—Large globular, medium loose, low crown. Guards milk-white, tinted flesh, center cream white touched crimson. Fragrant. Medium height, strong, free bloomer. Mid-season.

Rosea Superba—Brilliant. Deep cerise-pink, blooms compact and perfectly formed, healthy growth, long stems, keeps well, mid-season.

Rubra Superba—Large, informal rose type. Very deep brilliant rose-carmine or crimson. Fragrant. Medium grower and bloomer. Very late, very good keeper. Considered the very best late crimson.

Paeonia Tenuifolia—Fringe or cut-leaf Peony. Color dark crimson, June.



A BED OF PAEONIES

PAPAVER ORIENTALE

Large Oriental Poppies

P. orientale Goliath—A fiery scarlet variety of this genus. Height 3 to 3½ feet. Blooms in May and June. During their resting period after blooming care should be taken not to disturb the roots by cultivation.

P. orientale Mahoney—A dark crimson-maroon, shaded mahogany variety of the above.

PAPAVER NUDICAULE

Iceland Poppies

Of neat habit, forming a tuft of bright green fern-like foliage from which spring throughout the entire season a profusion of slender leafless stems one foot high, graced with charming cup-shaped flowers. Color white, yellow and orange-scarlet. Order by color.

If you want flowers continuously from April to October plant Iris, Peonies and Gladioli—adding Phlox for good measure.



We show above a corner of a garden of a lover of Phlox. Her neighbor too loves them because they are planted on both sides of the fence. What a sight this must be! If a photograph could only reproduce beautiful colors displayed in this bed we could convince you better of the desirability of this hardy, long blooming perennial plant. We grow over thirty of the finest varieties, all hardy. They are described on pages which follow.

Phlox bloom at a time of the year when many flowers are scarce and they are especially beautiful massed in groups as shown in the illustration above.

Phlox

THE Phlox is one of the most beautiful, most useful and most lasting of hardy perennials. The newer varieties are a great improvement over the old ones. Their immense trusses of flowers of every shade, but yellow, passing from pure white to dark red and purple. There are also all the intermediate shades, soft rose, mauve, lilac and salmon, pink, dazzling scarlet, blood red, crimson and amaranth. Sometimes self-colored, sometimes variegated, star eyed, washed and shaded in various and beautiful fashion.

Their blooming season is in July and August. Coming at a time when the early summer flowers have stopped blooming and the flowers of autumn have not yet begun—they are glorious masses of color, indispensable to the carefully planned garden where a constant succession of bloom is maintained.

Phlox to be at their best should have a very rich soil and plenty of water. The clumps should be lifted and divided every third year. Dwarf varieties may be set 10 to 12 inches apart. Tall varieties 2 to 2½ feet apart.



SEDUM (STONE CROP) (Page 187)

PHLOX (Continued)

They may be planted from early until late fall, or in the spring during April and May.

The varieties we have selected which follow are among the most desirable now in cultivation. We will probably add to this collection from time to time and drop other varieties which may be superseded in the future. It is our aim to grow only the most satisfactory sorts and our customers can rest assured that we are sparing no pains to select varieties which will satisfy in every instance.

Albion—White with faint red eye.

Baron Von Dedem—Superb panicles.
Beautiful bright red with carmine eye.

Bridesmaid—White with large crimson center.

Bouquet Fleuri—White with carmine eye, large truss.

Champ Elysees—Bright, rosy magenta.

Elizabeth Campbell—New and very fine.
Very large trusses, light salmon changing to pink in the center. Coloring distinct.

Frau. G. Von Lassburg—Pure white, immense panicles.

Faust—White with carmine center.

Fantome—Deep lavender, edged and shaded white. Dwarf.

Hodur—Pink shaded white.

Independence—Large, early flowering white.

Isabey—Salmon pink.

Iris—Aniline-blue, magenta eye. Young flowers showing magenta tinge. Very distinct and striking.

Lothair—Bright crimson.

Madame Pape Carpentier—Pure white, early. Dwarf.

Mrs. Chas. Door—A beautiful shade of lavender.

Miss Lingard—White with faint lilac eye.
Very free flowering. Beautiful for massing.

Pantheon—Rose-pink.

Pecheur d'Island—Lavender, cerise.

Richard Wallace—White with large crimson eye.

Rynstroom—A lively shade of rose-pink, very large.

R. P. Struther—Cherry red, suffused salmon.

Sir Edwin Landseer—Bright crimson.

Sunset—Dark, rosy pink.

Thebaide—Rosy-pink.

Terra neuva—Lavender, light center.

Divaricata Canadensis—A native species quite unlike the large-flowering sorts listed above. Begins blooming in April and continues through May. Bears large lavender and fragrant flowers on stems about ten inches high.

PHLOX SUBLATA—Moss Pink

An early spring-flowering type with pretty moss-like evergreen foliage which during the blooming season is completely hidden under the masses of bloom. An excellent plant for the border, rockery, carpeting ground or covering graves.

PERENNIAL FLOWERS (Continued)

PHLOX SUBLATA (continued)

Var. *Alba*—White.

Var. *Lilacina*—Light lilac.

Var. *Rosea*—Bright rose.

PENSTEMON—Beard's Tongue

Useful and showy.

P. barbatus Torreyi—Spikes of brilliant scarlet flowers in July and August. Three to four feet tall.

P. digitalis—Spikes of long purple-white flowers with purple throats during June and July. Two to three feet high.

PHYSOSTEGIA—False Dragon Head

One of the most beautiful of our mid-summer flowering perennials. Forms a dense bush 4 to 6 feet high.

P. virginiana speciosa—Spikes of a bright but soft pink delicate tubular flowers.

PINKS

Old favorites of the Hardy Garden sort bearing sweet, clove-scented flowers during May and June. Indispensable for the edge of the hardy border and for cutting. One foot high. Assorted colors. Order by color.

PLATYCODON—Balloon Flower

Closely allied to the Campanulas. Grow 2 to 2½ feet high. Begin blooming in July and continue about a month.

P. grandiflorum—Deep-blue cupped star-shaped flowers.

POLEMONIUM—Jacob's Ladder

P. reptans—Useful border plants 12 inches high, succeeding best in partially shaded positions. Deep green finely-cut foliage and spikes of showy blue flowers in May and June.

PYRETHRUM HYBRIDUM

Easy to grow. Loves the sun. Bloom in June. The fine fern-like foliage is attractive at all times.

Single-Flowering Sorts—Mixed colors only.

Double-Flowering Sorts—Crimson, pink and white colors. Order by color.

PYRETHRUM ULIGINOSUM

Giant Daisy

Grows 3 to 4 feet high and is covered with large white daisy-like flowers three inches in diameter from July to September.

RANUNCULUS—Crow-Foot

R. aconitifolius fl. pl. (Fair Maids of France)—Forms a branching bush 2 feet high. Flowers double, pure white in May and June.

RUDBECKIA—Cone-Flower

Indispensable for the hardy garden. Grow and thrive anywhere, giving a wealth of bloom which are well suited for cutting.

R. "Golden Glow"—A well-known popular plant. Robust grower. Five to six feet high. Produces a mass of double golden-yellow flowers from July to September.

SALVIA—Meadow Sage

S. azurea—A native species, grows 3 to 4 feet high, producing pretty sky-blue flowers during August and September in the greatest profusion.

SAXIFRAGA—Megasea

Thrives in any kind of soil. Grows about one foot high. Good for border planting. Foliage a deep green which alone makes them desirable. Blooms in early spring as soon as frost is out of the ground.

S. Compacta—Bright rose color.

SEDUM—Stone Crop

S. acre (Golden Moss)—A dwarf variety much used for covering graves; foliage green; flowers bright yellow.

S. spectabile—One of the prettiest tall-growing species, 18 inches high. Broad, light green foliage with immense heads of handsome showy rose-colored flowers. Blooms late in the fall.

SPIREA—Goat's Beard

Elegant border plants with feathery plumes of flowers and neat, attractive foliage. Succeeds best in a half-shaded location.

S. aruncus—A splendid variety, 3 to 5 feet high. Bears feathery panicles of white flowers in June and July.

STATICE—Great Sea Lavender

S. latifolium—A most valuable plant with tufts of leathery leaves and immense candelabra-like heads, frequently 1½ feet high and 2 feet across, of purplish-blue minute flowers, July and August.

STOKESIA—Cornflower Aster

S. cyanea—A native plant 18 inches high, bearing flowers freely from early June until September of handsome lavender-blue, which measure 4 to 5 inches across. Succeeds in any open, sunny position.

SWEET WILLIAM

Dianthus Barbatus

A well-known, attractive, free-flowering hardy perennial. Bloom in early summer.

S. W. Newport Pink—The prettiest color among Sweet Williams; a lovely salmon or watermelon pink.

PERENNIAL FLOWERS (Continued)

S. W. Pure White—Very large.

S. W. Scarlet Beauty—Rich, deep scarlet; very effective.

TRITOMA

Red-Hot Poker, Flame Flower or Torch Lily

The early, free and continuous blooming qualities of the Tritoma make it one of the great bedding plants. Valuable for massing. Not hardy.

T. Pfitzerii—In bloom from August to October with spikes three to four feet high and heads of bloom of rich orange-scarlet.

TROLLIUS—Globe Flower

Desirable and free-flowering. Flowers giant buttercup-like on stems 1 to 2 feet high from May until August.

T. caucasicus ("Orange Globe")—Large, deep, orange-colored bloom as above.

TUNICA

T. Saxifraga—A pretty tufted plant with light pink flowers produced all summer.

VERONICA—Speedwell

V. rupestris—A fine rock plant, growing 3 or 4 inches high thickly matted deep-

green foliage, hidden in spring under a cloud of bright-blue flowers.

V. spicata—An elegant border plant about 1½ feet high, producing long spikes of bright-blue flowers in June and July.

V. spuria—Amethyst-blue flowers in June and July. Height 2 feet.

V. longifolia subsessilis (Japanese Speedwell)—The showiest and best of all the Speedwells. Forms a bushy plant 2 to 3 feet high with long dense spikes of deep-blue flowers from the middle of July to early September.

VINCA—Periwinkle or Trailing Myrtle

V. minor alba—An excellent dwarf evergreen used extensively in carpeting the ground under shrubs and trees or on graves where it is too shady for other plants to thrive.

YUCCA—Adam's Needle

Y. filamentosa—Among hardy ornamental plants this can be classed at the head of the list. Its broad, sword-like foliage, 5 to 6 feet tall, branched spikes of large, fragrant, drooping creamy-white flowers during June and July make it an effective plant for all positions.

GRASSES

Can be used in many ways and positions with telling effect. The varieties listed are the best of the many.

Erianthus Ravennae (Plume Grass)—Closely resembles the Pampas grass. Ten to twelve feet high.

Eulalia japonica—Has long, narrow, graceful green foliage and when in flower the attractive plumes are 6 to 7 feet high.

Eulalia japonica variegatus—Very ornamental; long, narrow leaves, striped green white and often pink or yellow. Six feet high.

Eulalia japonica zebrina (Zebra Grass)—The long blades of this grass are marked with broad yellow bands across the leaf. Six to seven feet high.

Pennisetum japonicum (Hardy Fountain Grass)—This variety grows about 4 feet high, foliage narrow, of a bright green, while the cylindrical flower heads carried well above the foliage are tinged with bronze-purple.



FESTIVA MAXIMA PEONY (See page 183)



HYACINTHS (See page 191)

Garden and Greenhouse Plants (Not Hardy)

CALADIUM ESCULENTUM (Elephant's Ear)

Effective in beds, borders and for planting on lawns. Will grow in any good soil. Height 4 to 5 feet, its immense leaves frequently 3 feet long.

CANNAS

No other bedding plant gives such uniform good results. Succeeds in any sunny position. For best effect plant in large masses of one color. Place plants or bulbs two feet apart.

DWARF GROWING

City of Portland—Pink

Eureka—White

Favorite—Yellow

Gaiety—Scarlet and Yellow

Hungaria—Pink

Meteor—Dark Red

President—Red

DAHLIAS

THE Dahlia is one of the most showy of our autumn flowers. Commencing to flower in August, they are a perfect blaze of bloom until stopped by frost in late autumn. The Cactus, Single and Pompon varieties are especially fine for cut flowers. We know of nothing more showy for table decoration than a loosely arranged bunch of long-stemmed Cactus or Single Dahlias. They delight in a deep rich soil, should be planted three and one-half to four feet apart and be tied to heavy stakes to prevent strong winds from breaking them down. The roots should be dug up in the fall and hung up in a dry cellar during winter. We have a large collection of all the best colors and varieties.

Colors—Dark red, pink, purple, red, scarlet, white, yellow and the variegated.
Order by color.

GLADIOLI

The Gladiolus is the most beautiful of the summer or tender bulbs, with tall spikes of flowers some two or more feet in height, often several from the same bulb. The flowers are of almost every desirable color, brilliant scarlet crimson, creamy white, striped, blotched and spotted in the most curious manner. As cut flowers they are the most lasting of anything we know. By cutting the spikes when two or three of the lower flowers are open, the entire spikes will open in the most beautiful manner. Set the bulbs from six to nine inches apart and about four inches deep. Plant from middle of April to first of June. It is a good way to plant at two or three different times, ten days or two weeks apart. This will give a succession of bloom from July to November. In the fall, before hard frost take up the bulbs, remove the tops, leave to dry in the air for a few days, and store in some cool place, secure from the frost, until spring.

Colors—Cream, blue, pink, purple, red, scarlet, white, yellow and the variegated.
Order by color.

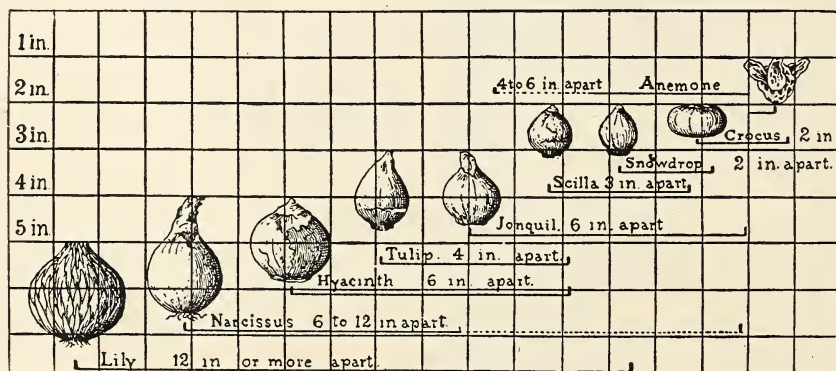
TUBEROSES

One of the most beautiful summer-flowering plants, producing spikes from two to three feet high, of double, pure waxy-white flowers, delightfully fragrant. May be kept in bloom for a long time by planting from the first of April to the first of June. Very desirable for bouquets or baskets.

Hardy Bulbs for Fall Planting

We give herewith a list of the choicest flowering bulbs. All the kinds mentioned under this head are intended only for fall planting. Plant the bulbs three to four inches deep in a rich, loamy or light soil. Cover the beds six inches thick with leaves during winter and remove early in spring.

DEPTH TO PLANT BULBS



CROCUS

Naturalized in the grass, or planted thickly in irregular lines, as a border for taller-growing bulbs, or grown in any way whatever, the Crocus is always a cheery and charming little flower. It opens among the first flowers of early spring, while the snow yet lies white on north hillsides, in a cold, dull time, when its bright colors are much appreciated. We have them in Blue, White, Striped and Yellow.

HARDY BULBS FOR FALL PLANTING (Continued)

HYACINTHS

This deservedly popular bulbous plant is without doubt the most beautiful and useful of all spring-blossoming bulbs; its delightful fragrance and the numerous tints of its beautiful trusses of bell-shaped flowers render it invaluable to all lovers of flowers and afford pleasure and delight to millions of the human race. It is of the easiest culture, and with any reasonable care no one can fail to meet with success in its cultivation. It is, however, highly important to secure the bulbs and have them planted in the fall.

POT CULTURE—A four-inch pot is the size for the successful growth of the bulb. It delights in light, rich, sandy soil; when placed in the pot the upper surface of the bulb should be above the soil. After potting, water thoroughly and place them in a dark, cool place in the cellar or out of doors, well covered with sand or other like material, there to remain until well rooted, when they should be taken in the house or greenhouse to bring them into flower. When in active growth they should have an abundance of water. Support the flower stems with light stakes if it is necessary, to keep them erect.

GLASS CULTURE—Hyacinths are very pretty and very interesting when grown in glasses. Their management thus is simple and as follows: Fill the glass with clean rain water, so that the base of the bulb when set in the receptacle for it on top of the glass will just touch the water. Set away in a cool, dark place until well rooted. A succession may be kept up in the manner recommended for pot culture. Change the water frequently, washing out the roots, if necessary, to cleanse them of any foreign substance. A piece of charcoal in the glass will serve to keep the water sweet and also affords nourishment to the plants.

OUTDOOR CULTURE—Plant in October or early in November, in soil deeply cultivated and rich. Set the bulbs about six inches apart and four inches deep, and when convenient place a handful of sand around each to prevent rot. Cover the surface of the bed with light short manure, as a protection to the bulbs during the severe months of winter. Remove this covering as soon as the severe frost is gone in spring. After flowering, and when the foliage is well manured, the bulbs may be removed from the soil and kept dry until the following fall; or, if the bed is wanted for summer-flowering plants before the foliage is ripened, the bulbs may be carefully removed and again covered with soil in any out-of-the-way corner of the garden until they have matured their foliage. Some cultivators allow their bulbs to remain in the beds several years undisturbed and with excellent results.

Colors—Dark blue, light blue, pink, purple, red, yellow, and white.
Order by color.

JONQUILS

A species of *Narcissus* with fragrant bright-yellow flowers, suitable for house or garden culture. Requires the same treatment as *Narcissus*.

LILIES

No class of plants capable of being cultivated out of doors possesses so many charms; rich and varied in color, stately and handsome in habit, profuse in variety, and of delicious fragrance. They thrive best in a dry, rich soil, where water will not stand in winter. After planting they require very little care and should not be disturbed for several years, as established plants bloom more freely than if taken up annually.

L. auratum (Gold-Banded Lily) — Large graceful flowers of six petals of a delicate ivory-white, thickly studded with chocolate-crimson spots and striped through the center a golden yellow.

L. candidum (Madonna Lily) — A delicately fragrant, pure waxy-white lily, of easy culture.

L. Harrissii (Bermuda Easter Lily) — The flowers are large, trumpet-shaped, pure waxy white, gracefully formed

and delightfully fragrant. The ease with which it can be forced into flower in winter has made it wonderfully popular as a winter flower.

L. longiflorum (Japanese Easter Lily) — A pure waxy white, often tinged with green at the base; deliciously fragrant.

L. pardalinum (Leopard Lily) — An easily grown lily for general culture. Scarlet, shading to rich yellow, spotted with purple-brown.



TULIPS

L. speciosum album—Large white flowers of great substance with a greenish band running through the center of each petal.

L. speciosum rubrum—White, heavily spotted with rich, rosy-crimson spots.

L. speciosum magnificum—Rich, deep red.

L. superbrum (American Turk's Cap)—A beautiful native variety, bright reddish-orange, spotted, 3 to 6 feet high; blooms in August.

L. tigrinum splendens (Tiger Lily)—Bright orange-scarlet with dark spots; fine.

NARCISSUS

Admirably adapted for garden decoration in early spring. They are easily cultivated; hardy. Very showy and fragrant. Should be planted in the fall, same as tulips. Fine for winter culture in pots or boxes.

TULIPS

The Tulip is so perfectly hardy and so easily cultivated that it never fails to please. We know of nothing that for the amount of money invested will give a more gorgeous show during early spring. It thrives well in almost any soil. Should be planted during October and November. Plant three inches deep in rows nine inches apart. Allow the ground to freeze before putting on their winter covering. They may remain in the beds two or three years, when they should be taken up and replaced with new bulbs. If desired, bedding plants may be planted between the rows, as the plants will not have made much growth before the Tulips have ripened up, when the tops may be raked off and the plants allowed to cover the whole bed. Tulips succeed admirably in pots or boxes for sitting room or parlor decorations during winter.

Single—In colors of pink, blue, red, white, yellow and variegated.

Darwin Tulips—These are a strain of long-stemmed late-blooming self-colored Tulips. Various colors, mixed.

Double—In colors of pink, purple, red, yellow and white.

Parrot Tulips—This species with curiously enlarged and cut or frayed petals and odd color markings.

Index

The index is a time-saver. Both salesmen and patrons will find it so. We have also included below a list of the Departments into which this catalog is divided. It will be helpful, too. The complete index which follows Departments includes both the botanical and common names of all the deciduous and evergreen trees and all ornamental stock that we are growing and have to offer. Botanical names are in *italic*.

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We are the introducers of the Austrian Prune Plum which we show above in actual size and color. This variety can only be secured from us. Owing to the great demand for this wonderful plum which averages $4\frac{1}{2}$ ounces and over, we suggest that orders be placed early. Full description may be found on pages 82 and 83.

WARNING:—All persons are hereby warned that this variety, Austrian Prune Plum, can only be secured from us. Any use of the name Austrian Prune Plum as applied to a plum will be considered an infringement of our rights under the Laws Governing Trade Marks and all violators of same will be prosecuted.

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Monroe, Michigan

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